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Cultural Hybridization: Bicultural Self-Efficacy And Resilience In Northern Plains American Indians

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CULTURAL HYBRIDIZATION: BICULTURAL SELF-EFFICACY AND RESILIENCE IN NORTHERN PLAINS AMERICAN INDIANS

by

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This dissertation, submitted by Kyle X. Hill in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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Kyle X. Hill

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ACKNOWLEDGEMENTS

My hope is that this document is but one breath, in the continued persistence of Indigenous peoples, or perhaps one heartbeat, striking the earth, connecting us all. The struggle, which has come to bear, has not passed. Though, with the protection of our culture and the fortitude of our collective intelligence we can live and love. Wopila.

ABSTRACT

The present study examined bicultural self-efficacy and its relationship to resilience in Northern Plains American Indians. American Indians in the Northern Plains, like many tribes in the United States, experienced a calamitous history marked by interactions with the federal government that were often fatal to the Indigenous peoples of North America, and found to contribute to a conflicted individual and collective well-being of these people within the Northern Plains region. As such, the investigation sought to identify the relationships between that of cultural identity, resilience, and negative life events, or risk, to measures of psychopathology. To that end, efforts involved the use of a number of assessments to evaluate Northern Plains American Indian community members and college students on general characteristics of past risk or trauma experienced, cultural identity, a measure of resilience via endorsement of protective factors, and internal (psychological) adaptation.

The study consisted of 198 participants (130 female, 68 male), ages 18-74 recruited from the University of North Dakota main campus and a tribal Community College. Participants were from a variety of Northern Plains tribes. A simultaneous multiple regression and analysis of variance (ANOVA) were utilized to test hypotheses with a Statistical Package for Social Sciences (SPSS), analyzing each criterion variable of anxiety and hopelessness; with ethnicity, age, resilience, Northern Plains Biculturalism Inventory – III (NPBI-III) cultural classification, indices of Bicultural

Self-Efficacy, and exposure to cumulative negative life events as predictors. Interactions within the Simultaneous multiple regression was analyzed to see if resilience served to negate the impact of stress on indices of psychological well-being in American Indian participants.

Results indicated that the endorsement of protective factors tapped by the resilience construct were negatively associated with anxiety and hopelessness. Furthermore, resilience was found to moderate the relationship between negative life events and hopelessness, but only at medium and high levels of self-reported resilience. Thus, the relationship of negative life events with hopelessness was unaffected when self-reported protective factors were low. In contrast, self-reported endorsement of negative life events or risk was positively correlated with indices of psychopathology in this study. Next, scores on the measure of cultural identification (NPBI-III) was positively correlated with indices of bicultural self-efficacy as measured by the Bicultural Self-Efficacy Scale (BSES). With respect to bicultural self-efficacy, the Role Repertoire subscale within the BSES construct were found to predict hopelessness, being positively correlated with hopelessness; whereas, the Communication subscale of the BSES was found to predict anxiety, being negatively correlated with the measure of anxiety. Interestingly, the BSES subscales were largely unrelated to cumulative adversity experienced (i.e., negative life events). However, BSES subscale scores were positively related to scores on the resilience measure. In particular, the Positive Attitudes subscale and Communication subscales both significantly contributed to the prediction of resilience within this sample.

CHAPTER I

INTRODUCTION

Literature Review

The culture of America has evolved into a complex system comprised of the unique contributions of a variety of ethnic/racial groups, urban and rural environments, media contexts, and capitalism. Democracy, for our purposes, is said to represent such an intricate cultural framework as that endemic to the United States. Despite such attempts to retain tradition in any population in the United States, most, if not all groups of people are often a microcosm of the environment in which they exist. Therefore, we are witnessing expeditious transition and evolution into the inheritance of multicultural beliefs, values, and practices, from the largest of collective agencies to the individual. Thus, American history has had a forceful impact on individual as well as collective entities, whereby the imminent acquisition of a multicultural identity is often a necessity. Today, our nation is facing grave struggles between inferiority and superiority, ethnocentrism and egalitarianism, discrimination and acceptance. In spite of the cultural evolution and technological advancement that we have achieved, coupled with the revere of people around the world, the fabric of our country is still plagued by socioeconomic inequality, leaving modern America impoverished as a collective.

Furthermore, the impact of cultural identity cannot be overlooked in terms of its importance in the well being of individuals, families, and communities. At the individual level, people are often exposed to two differing cultures, leading to the necessary development of a degree of competence in two separate cultural systems. Therefore, individuals are experiencing increasing environmental influence to adopt mainstream cultural systems that often differ to a great degree from their traditional culture, a process known as acculturation. Historically, individuals who had to navigate the values, beliefs, and milieu of two cultures were perceived as conflicted, and having a divided loyalty. In contemporary social and institutional contexts, individuals that display competence in two or more cultural systems may be called derogatory names (e.g., oreo, apple, coconut, banana) reflecting their perceived behavior according to cultural systems different from their traditional cultural heritage (LaFromboise, Coleman, and Gerton, 1993). The common assumption is that negotiating two cultural systems creates identity confusion, leading to marginality and ambivalence of self. However, we have also come to understand, through both research and experience, that international progress involves the interface of cultures. Therefore, individuals with bicultural competence can benefit society, essentially through their unique ability to shift between cultures. According to David, Okazaki, and Saw (2009), bicultural individuals are those who have been exposed to two different cultural systems, and have internalized, developed, and adopted two cultural knowledge systems.

Biculturalism

In order to understand biculturalism it is important to first understand cultural identity. LaFromboise, Coleman, and Gerton (1993) assert that cultural identity refers to the "evolution of a sense of self in relation to a culture of origin and who one is within and without that cultural context" (p.402). Ethnic identity refers to, "a subjective sense of ethnic group membership involving self-labeling, ethnic/cultural knowledge, and involvement in ethnic/cultural group activities" (Albright and LaFromboise, 2010, p.437). Furthermore, ethnic identity has also been defined as, "one's sense of belonging to an ethnic group and the part of one's thinking, perceptions, feelings, and behavior that is due to ethnic group membership" (Newman, 2005; p. 736).

Newman (2005) also indicates that ethnic identity formation consists of two processes, socialization and enculturation. Socialization refers to a process whereby people acquire behaviors, perceptions, values, and attitudes regarding their ethnic group. Enculturation refers to a process where individuals learn about their ethnic culture and the extent to which they identify with that culture. Both aspects of identity development ultimately influence emergence of self-concept, which is tied to what is learned about the ethnic group, how to conceptualize the information and apply to oneself, as well as the experience of acceptance by other members of the cultural group (Trimble, 2000). Further, an individual's degree or stage of identity development may be similar to that of the systematic developmental framework posited by Erikson's theory of ego identity formation (Phinney, 1990). LaFromboise, Coleman, and Gerton (1993) assert that two facets of identity are important in their contributions to bicultural identity, the first of which is ego strength, similar to that postulated by Erikson's theory

of ego identity formation. LaFromboise, Coleman, and Gerton (1993) postulate that ego identity involves the person's sense of self that interacts with the environment to develop ethnic identity. Next, the development of cultural identity occurs when one's sense of self evolves in relation to the context. Thus, there seems to be a linear or progressive process involved in ethnic identity development, which may correspond to the developmental stage of the individual. Implicating not only the importance of sociocultural and socioeconomic variables to ethnic identity development, but also psychological factors that may promote or impede the process of ethnic identity development (LaFromboise, Coleman, and Gerton 1993). In particular, ethnic minorities face the added dimension of integrating ethnic identity with a sense of self, where an individual's ability to efficiently navigate this process is dependent on a host of biogenetic and social ecological factors (i.e., socioeconomic status, parental influences, sociopolitical environment, community experiences, etc.) (Newman, 2005). Thus, achieving a stable and cohesive ethnic identity (e.g., acculturation, enculturation, biculturalism) is dependent on a number of life experiences, and contingent upon a stable ego development.

With respect to the construct of bicultural identity or biculturalism, LaFromboise, Coleman, and Gerton (1993) reviewed the literature base on the psychological impact of biculturalism within the framework of five separate models of second-culture acquisition with the goal of defining bicultural competence. The models of second-culture acquisition include the following: Assimilation model, Acculturation model, Alternation model, Multicultural model, and Fusion model. The authors utilize a social-cognitive definition of culture based on Bandura's concept of reciprocal

determinism, where cultural competence is seen as a result of the continuous interaction between an individual's behavior, their cognitive and affective processes, as well as their social environment (LaFromboise, Coleman, and Gerton, 1993).

Under the theoretical assumptions of the Assimilation Model, individuals are believed to be motivated to absorb or adopt into a new culture that is perceived as more dominant or desirable than their original culture. The goal of the assimilation model is acceptance by target culture, often mainstream, European culture. The underlying assumption of the Assimilation Model is that individuals will lose their original cultural identity in favor of the acquisition of identity into the second culture. Further, the model asserts that an individual will suffer from feelings of alienation and isolation until he/she assimilates (i.e., is accepted) into the new culture. Thus, the individual will likely experience stress, anxiety, school failure, and/or substance abuse as a result of such discomfort or marginality. According to LaFromboise, Coleman, and Gerton, (1993), assimilation can lead to three conflicts: the possibility of being rejected by members of the majority culture, the likelihood of being rejected by their culture of origin, and stress associated with adopting attitudes, beliefs, and behaviors of their culture of assimilation along with the cost of shedding the inert behaviors of the original culture.

The Acculturation Model is similar to the assimilation model, in that, they both focus on the acquisition of majority group identity by individuals of a minority group. However, the acculturation model emphasizes that individuals will always be identified as a member of a minority culture despite achieving a high degree of competence in the majority culture. Furthermore, Berry and Annis (1974) investigated the psychological

adaptation to culture change among Amerindian peoples from the James Bay, Carrie, and Tsimashin communities in Ontario, Canada. The authors found that the greater the cultural incongruity/discontinuity between the Indian or Anglo communities surrounding participants, the greater the acculturation stress on the individual. Further, individuals who were able to achieve a cognitive style independent of fellow tribal members were less susceptible to sociocultural change. Hence, the aforementioned studies emphasize the importance of establishing an understanding of the role that individual development plays in second-culture acquisition. Often, most studies on acculturation indicate that minorities are often relegated to second-class citizenship, largely due to discriminatory behavior of the majority culture. Collectively, acculturation studies imply that acculturation is a stressful experience, reinforcing the supposition that individuals from a minority culture are often forced to face second-class citizenship and alienation when dealing with the process of acculturation.

The Alternation Model of second culture acquisition refers to the assumption that it is possible for an individual to live and operate according to two different cultures by alternating between behavioral sets. Further, behavior is believed to change according to social context. Most importantly, however, is that under the assumptions of the alternation model is that an individual does not have to sacrifice his/her sense of cultural identity at the expense of achieving a sense of belonging in two cultures (LaFromboise, Coleman, and Gerton, 1993). Furthermore, individuals who are capable of successfully alternating their behavior according to two cultures are believed to exhibit a variety of adaptive characteristics (i.e., mental health, cognitive functioning).

The alternation model differs from the assimilation model and acculturation model as it supports the assumption that an individual can have a positive relationship with both cultures, without necessarily having a particular affinity to only one culture. The alternation model also does not support a hierarchical relationship assigned to both cultures (i.e., both cultures can be of equal status). Moreover, individuals choose the degree to which they affiliate with either or both cultures. Early investigations into the biculturalism of American Indians largely adhered to the theoretical assumptions of the alternation model. The strength of the alternation model is that it focuses on a cognitive structure or process that aids the individual in withstanding the negative impact of acculturation.

The Multicultural Model is based on the assumption that an individual can maintain a positive identity within his/her own culture, while simultaneously developing a positive identity and navigating complex sociocultural structures of other cultural groups. According to the multicultural model, the stress caused by internal conflict from bicultural stress could lead to personal and emotional growth, rather than having a negative psychological impact (LaFromboise, Coleman, and Gerton, 1993).

The Fusion Model asserts that cultures will fuse together until they become undistinguishable from one another and form a new culture. The fusion model differs from the multicultural model and the assimilation model, as there is no assumption of cultural superiority. Though there are few examples of a culture that exhibits characteristics of a fusion model, there are multiple examples of cultures assimilating into the majority culture, lending cultural, social, and spiritual elements to increase quality of life. Despite the numerous differences inherent to each model of second-

culture acquisition, the literature decisively maintains that the ability for an individual to maintain active and effective relationships while negotiating the milieu of two separate cultures serves a protective function.

LaFromboise, Coleman, and Gerton, (1993) conclude their investigation into an understanding of biculturalism under the assumption that bicultural competence is best explained by the alternation model. The alternation model lends itself most favorably to bicultural competence as it maintains that an individual can acquire competence in two cultures without compromising identification in his/her culture of origin. Although persons of color may experience economic and social discrimination, the majority of contemporary literature on biculturalism maintains that identification with two cultures may function as a protective factor, especially when an individual is able to maintain competence in both cultures (LaFromboise, Coleman, and Gerton, 1993; LaFromboise, Albright, and Harris, 2010; David, Okazaki, and Saw, 2009).

Furthermore, LaFromboise, Coleman, and Gerton, (1993) suggest that several characteristics influence the development of bicultural competence. These include socioeconomic status, age or stage of psychosocial development, gender, and personal and cultural identity. The development of personal identity, according to LaFromboise, Coleman, and Gerton, (1993), involves the evolution of a sense of self-sufficiency and ego strength, which are especially relevant in order to operate as an individual within a social organization. Finally, the authors suggest a number of dimensions that contribute to an individual's ability to adaptively integrate a healthy identity while attempting to negotiate two cultural structures. These aspects included: knowledge of cultural beliefs

and values, positive attitude toward both majority and minority cultures, bicultural efficacy, communication ability, role repertoire, and sense of being grounded.

According to LaFromboise, Coleman, and Gerton (1993), a culturally competent person is assumed to have internalized the basic beliefs of their culture, including knowledge and awareness of the social institutions, history, and ceremonies. Positive attitude toward both cultural groups involves the assumption that an individual recognizes that bicultural competence is a desirable goal and holds each cultural group in positive regard, though not necessarily in a hierarchical fashion. LaFromboise, Coleman, and Gerton, (1993) assert that a negative attitude toward one or both cultural groups, especially the mainstream or dominant culture, may result in negative psychological and behavioral outcomes. In contrast, if an individual has a belief or confidence in his/her ability to effectively navigate two cultural groups without losing his/her sense of cultural identity they are said to possess bicultural efficacy (LaFromboise, Coleman, and Gerton, 1993). Bicultural efficacy, then, is believed to serve a protective function, buffering individuals from the negative impact of discrimination, rejection, and challenging situations within differing cultural environments.

Another important aspect of bicultural competence refers to communication ability, which is based on proficiency in communication of ideas, feelings, and values of a culture, both verbally and nonverbally. An individual's ability to operate within the social structures of a culture is also an important aspect of bicultural competence. Therefore, the greater the number of roles and range of culturally appropriate behaviors that an individual displays, the higher the level of bicultural competence (e.g. higher

education attainment). Lastly, groundedness, which is another facet of bicultural competence, refers to the importance to which an individual can rely on support systems from both cultures when managing a bicultural existence. Thus, groundedness reflects the necessity of a support system in order to be effective in a bicultural environment. Bicultural competence, then, requires a number of abilities or skill areas, which is a testament to the struggles of the growing population of those that such skills are required of.

In American society, a growing number of individuals are extensively exposed to, and seek support from two different cultures, internalizing aspects of each culture in the formation of an integrated identity. The 2010 Census reports that Latino populations have grown by 43% from the 2000 Census. Other ethnic minority populations have increased anywhere from 12.3% (African-American) to 43.3% (Asian), with approximately 28% of the U.S. population being occupied by populations other than White/European (U.S. Census Bureau, 2010). Biculturalism, then, is becoming an increasing public health challenge, having direct implications on the sustainability and viability of the socioeconomic and sociopolitical landscape within the United States. Being able to navigate two cultural systems adaptively, then, becomes particularly overwhelming; as many individuals face the constant challenges of meeting highly valued standards, principles, and values of a culture that they've only recently come into contact with, often out of necessity (i.e., acculturation, forced assimilation).

According to David, Okazaki and Saw (2009), bicultural individuals often find themselves accountable to two audiences, and face constant challenges of having to operate within the lens of two different cultural milieus. Such challenges include, but

are not limited to: meeting highly valued standards, principles, and belief systems of a foreign culture, daily difficulties of socially interacting with people of another culture (i.e., language barriers, perceived discrimination, economic and social discrimination). Failures navigating potential conflicts and dissonance of having to live in a bicultural environment are thought to place bicultural individuals at increased risk of developing psychological difficulties (e.g., depression, anxiety) (Tsai, Chentsova-Dutton, and Wong, 2002).

Culture, Control, and Self-Efficacy

Chorpita and Barlow (1998) assert that the development of depression and anxiety involve an individual's sense of control over their environment; whereby anxiety is related to uncertain helplessness, and depression is related to feelings of hopelessness. LaFromboise, Albright, and Harris (2010) assert that hopelessness is linked to such negative mental health issues as depression, high-risk behaviors, violent behaviors, and adolescent suicide. Evidence suggests that a history of a lack of control in one's environment may exacerbate psychological vulnerability, as the experience of uncontrollable events may lead to an increased generalized perception that events are not within one's control (Chorpita and Barlow 1998). Whereas, perceived sense of control over one's environment, or self-efficacy, is often an antecedent to an adaptive ability to overcome the challenging situations often faced in bicultural situations (David, Okazaki, and Saw 2009). Bandura (1977) postulates that perceived control and self-efficacy serve different functions, though causal assignment of behavior to skill or chance can mediate the effect of performance on self-efficacy (i.e., attributing mastery experiences to chance may have little to no effect on self-efficacy, whereas, attributing

mastery experiences to skill may function to increase self-efficacy). Specifically, self-efficacy refers to an individual's belief that he/she has the capability to influence, or produce desired effects in his/her environment (Bandura and Locke, 2003). Therefore, an understanding of the impact that perceived control has on psychological adjustment is important in order to determine the implications of self-efficacy in a multicultural environment.

LaFromboise, Coleman, and Gerton (1993), theorize that bicultural competence lends itself to better physical and psychological health than those who lack such competence. Further, one of the six dimensions in the development of bicultural competence involves bicultural efficacy, which corresponds to the belief that one can adapt, and function within two groups without compromising original cultural identity. Similarly, the psychological construct self-efficacy likely has an impact on, and very well may contribute to well-being and psychological adjustment in bicultural individuals. According to Bandura (2002), the growing ethnic diversity within the United States places a higher functional value on bicultural efficacy to negotiate the demands of one's own culture and that of larger society. Efforts to build a new life in mainstream society involve the navigation of various obstacles, however, those that hold a strong self-efficacy are less likely to be at risk for psychological difficulties due to a perceived ability to control or influence such situations (David, Okazaki, and Saw, 2009).

According to Bandura (1977), an efficacy expectation is a belief that one can successfully execute a behavior to arrive at a given outcome. Despite knowing that a behavior will often lead to an appetitive outcome, Bandura (1977) theorized that if an

individual has doubts as to whether or not they can accommodate or perform such a task, the doubts about their ability to influence the situations would influence behavior. Therefore, expectations of personal mastery contribute significantly to an individual's willingness to approach certain situations, contexts, or objectives; although they know that the behavior may have attractive consequences.

Perceived self-efficacy contributes to fear/avoidance behavior, or approach behavior based simply on the extent to which an individual feels that they have the coping skills necessary to adjust to such a situation. Self-efficacy, then, contributes significantly to a person's choice of behavioral setting, as individuals will tend to avoid settings in which they perceive as threatening (Bandura, 1977). Therefore, if an individual carries doubt to his/her ability to perform a task, he/she will be likely to avoid such an undertaking, whereas, if he/she believes that they can perform an objective they will likely attempt the task. The degree of self-efficacy is also important, as a higher self-efficacy will lead to sustained effort, and ultimately, reinforcement of perceived efficacy relative to the task at hand. Whereas, a low degree of self-efficacy will lead to less persistence or a premature discontinuation of efforts when experiencing adversity, ultimately reinforcing feelings of inefficacy and anxiety (Bandura, 1977). "Given appropriate skills and adequate incentives, however, efficacy expectations are a major determinant of people's choice of activities, how much effort they will expend, and how long they will sustain effort in dealing with stressful situations" (Bandura, 1977, pg. 194).

The negative impacts of feelings of inefficacy can be devastating. According to Chorpita and Barlow (1998), helplessness, or the perceived inability to affect change on

one's environment corresponds to heightened states of anxiety. Furthermore, anxiety and helplessness is often a precursor, or risk factor, for the development of depression, and associated feeling of hopelessness. Chorpita and Barlow (1998) assert that hopelessness, or a complete loss of perceived ability to effect change in one's environment, predominates the clinical picture when an individual's sense of control is completely diminished, which then leads to a higher likelihood that one would experience a depressive state.

The implication of level of control on the development of anxiety serves as a platform for another theory of the etiology of anxiety. Control can be defined as the ability to personally influence events and outcomes in one's environment, especially those related to positive and negative reinforcement. Furthermore, the perception of events as under the control of the individual is important, as evidence of low control would likely increase anxiety. Evidence suggests that a history of a lack of control may exacerbate psychological vulnerability, as early experience with incontrollable events may eventually lead to an increased generalized tendency to perceive events as not within one's own control. It appears, then, that early experience serves an integral role in the prevention of subsequent experience of anxiety and/or depression (Chorpita and Barlow, 1998). Thus, we can begin to identify the relationship between self-efficacy and psychopathology, however, perceived self-efficacy is not a static variable, and it changes according to context. For example, an individual could have a high self-efficacy in playing a musical instrument, but carry a low perceived efficacy, or inefficacy, in public speaking. Self-efficacy, then, as a psychological construct driving behavioral facility in a multicultural environment would conceivably be very different

from other areas of personal efficacy; though one that may have great implications on a person's ability to function in contemporary American culture.

David, Okazaki, and Saw, (2009) investigated bicultural self-efficacy in college students at a large Midwest university in order to construct and validate an assessment measuring bicultural self-efficacy. The measure called the Bicultural Self-Efficacy Scale (BSES) utilized the six dimensions of bicultural competence set forth by LaFromboise, et al. (1993) (i.e., knowledge of cultural beliefs and values, positive attitudes toward both majority and minority groups, bicultural efficacy, communication ability, role repertoire, and groundedness). The authors asserted that failures to adaptively cope with potential conflicts and cognitive dissonance produced in bicultural circumstances place bicultural persons at risk for psychological difficulties (Tsai, Chentsova-Dutton, and Wong, 2002). Such increased risk for psychopathology may be exacerbated if those individuals have a low perceived self-efficacy about their ability to control or influence difficult situations in bicultural contexts. Thus, bicultural self-efficacy, or an individual's perceived ability to operate and adapt in an individual's culture of origin as well as mainstream culture, is especially important.

First, David, Okazaki, and Saw, (2009) created an item pool guided by the theoretical framework proposed by LaFromboise, Coleman, and Gerton, (1993), utilizing six dimensions of bicultural competence (i.e., knowledge of cultural beliefs and values, positive attitudes toward both majority and minority groups, bicultural efficacy, communication ability, role repertoire, and groundedness). Individuals were then tasked to generate a number of items reflecting the central characteristics of the six dimensions of cultural competence proposed. The resulting 46 items were believed to capture the construct of bicultural competence. The scale required participants to rate their degree of agreement on a scale from 1-9, with higher

scores indicating higher perceived self-efficacy. The authors then performed an exploratory factor analysis on an item pool to measure bicultural competence, identifying 26 items that best captured the six dimensions of bicultural competence set forth by LaFromboise, Coleman, and Gerton (1993). The sample consisted of two hundred sixty-eight ethnic minority undergraduate participants who were recruited from a large Midwest university. Sixty percent of the sample was female, with 44% of the sample born outside of the U.S. as immigrants while the others were born in the U.S. Participants. Ninety-four participants identified as Asian, 82 as African American, 43 as Latino/a, and 49 as "multiracial" or "other". Participants were given the bicultural self-efficacy scale comprised of six dimensions from LaFromboise et al. (1993). Participants were also given The Vancouver Index of Acculturation (VIA), a 20-item measure of an individual's level of acculturation based on two dimensions; a mainstream cultural dimension and a heritage culture dimension, both dimensions were represented by 10 item pairs measuring ethnic identity via heritage and mainstream dimensions. The heritage culture is the persons culture of birth or upbringing, whereas, the predominant cultural environment is referred to as mainstream culture (Ryder, et al., 2000). Participants were also given inventories of psychological well-being (life satisfaction), a social desirability scale, as well as a measure of depression and anxiety. The results provided evidence of the validity and consistency of the Bicultural Self-efficacy Scale.

First, the results indicated that perceived bicultural self-efficacy, as measured by the BSES, had positive correlations with life satisfaction. Conversely, the BSES evidenced generally negative relationships with measures of mental health, specifically depression and anxiety. Next, all BSES factors (i.e., social groundedness dimension, communication ability dimension, positive attitudes dimension, cultural knowledge dimension, role repertoire

dimension, bicultural beliefs dimension) were generally unrelated to a measure of social desirability, providing support for the discriminant validity of the construct, in that the dimension produced scores that were divergent from or relatively unrelated to a theoretically unrelated construct (social desirability). Last, the BSES scores shared positive relationships with both mainstream and heritage subscales of the VIA, which suggests that higher perceived bicultural self-efficacy on the BSES is related to higher levels of acculturation and enculturation as measured by the VIA.

A second study investigated whether the six-factor structure obtained from study 1 would replicate with an independent sample to provide additional construct validity for the BSES. The participant pool consisted of 164 ethnic minority undergraduate students from a large Midwest university, of which, 54% were female and approximately 40% were born outside of the U.S. The average age of participants was 19.2 years. The participant pool for the second study consisted of 106 Asian American students, 28 Latino/a, 27 African American, and 3 multiracial/"other" individuals. In addition to the BSES, participants were given the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, and Griffin, 1985), Multidimensional Ethnic Identity Measure (MEIM; Phinney, 1992), the Collective Self Esteem Scale (CSES; Luhtanen and Crocker, 1992), Center of Epidemiological Studies – Depression Scale (CESD; Radloff, 1977), the Bicultural Identity Integration Scale (BIIS; Benet-Martinez, 2003), The College Academic Self-Efficacy Scale (CASES; Owen and Froman, 1988), The General Self-efficacy Scale (GSES; Sshwarzer and Jarusalem, 1995), and The Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1988).

Results of the study indicate that the use of a six-factor structure captures the construct better than alternative methods, providing support for the scale's construct validity. BSES

factors (i.e., social groundedness dimension, communication ability dimension, positive attitudes dimension, cultural knowledge dimension, role repertoire dimension, bicultural beliefs dimension) demonstrated low to moderate correlations with academic self-efficacy (i.e., CASES) and general self-efficacy (i.e., GSES), strengthening support for the construct validity of the BSES (David, Okazaki, and Saw 2009). Furthermore, bicultural self-efficacy demonstrated a positive relationship with mental health in bicultural individuals, which was evidenced by the positive relationship between all BSES factors and life satisfaction as measured by the SWLS.

David, Okazaki, and Saw (2009) also measured the Test-Retest reliability of the BSES in third study. Fifty-one Asian American participants completed the 26-item BSES twice, two weeks apart, as part of a study examining ethnic and cultural identity. Results supported the test-retest reliability of the BSES, as the test-retest correlations were statistically significant between BSES administrations, ranging from .62-.78 for the six dimensions represented within the scale (i.e., Social Groundedness, Communication Ability, Positive Attitudes, Knowledge, Role Repertoire, and Bicultural Beliefs). Thus, there is evidence that the BSES is a valid and reliable measure of bicultural self-efficacy. The BSES has also provided evidence of a positive relationship with adaptive coping, and healthy psychological adjustment. Perhaps, for those ethnic minorities experiencing difficulty with attaining a bicultural identity in the U.S., bicultural self-efficacy may function as an important indicator to achieving a level of comfort in reaching adaptive levels of functioning in two cultural systems. With respect to a population that has suffered tremendous indignities at the hands of Western culture, American Indians have been shown to benefit from a bicultural identity.

Despite the existence of various health disparities within American Indian communities, the identification with one's culture of origin, mainstream culture, or both, has been shown to protect individuals from experiencing some forms of psychopathology (LaFromboise, Albright, and Harris, 2010). Thus, American Indian populations may profit from interventions or prevention programs focused on fostering bicultural self-efficacy. In time, prevention and intervention initiatives would employ culturally informed methods of treatment to enhance resilience within American Indian communities that have been damaged by political initiatives within the lands that they originally inhabited.

Ogichidaag-Nagamon; American Indian Survival

American Indians have been subjected to a particularly unfortunate history via colonial influence, marked by various malicious interactions with the federal government and disenfranchisement. Currently, large populations of American Indian people continue to live on reservations that were predicated upon a litany of federal policies attempting to eliminate American Indian culture and spirituality. What can often be seen on American Indian reservations is a highly segregated group of peoples, and a community largely devoid of economic development and educational opportunity that many other "mainstream" communities are afforded. Often, American Indian communities are tucked away in the most remote areas of the United States. Some American Indian communities will have little more than a gas station, bar, casino, k-12 school, and grocery store, if that. What is especially disconcerting is the cultural erosion on reservations and other American Indian communities. Cultural erosion within American Indian communities refers to the tendency for the communities to reduce or cease reliance on cultural activities (i.e., traditional and spiritual

activities) over time, to sustain and protect their communal/cultural relations. The result often manifests in a difficulty in identifying culturally relevant stimuli in these communities.

Though the initial settlement of Europeans, particularly the Spanish, can be traced to approximately 1565, earlier efforts to establish residence and/or collect slaves were largely thwarted by resistance from Indigenous North Americans. Thus, for the purposes of this investigation, it can be assumed that European colonization of North America commenced in mid to late-16th century (Thornton, 1987). Remarkably free of many known diseases, American Indians were exposed to Old World pathogens from early European arrival, as well as from Africans who accompanied them. "This had implications on the 'real colonists' who would arrive afterward. By eliminating earlier populations of American Indians, the Old World diseases prepared the way for European military conquest and full colonization" (Thornton, p. 62).

Subsequently, European advances into North American only increased into the 18th century, leaving no Indigenous American Indian territory unaffected. Consequently, American Indian tribes and associated cultures were subjected to a troubling period of genocide and 'ethnic cleansing' via various interactions with colonists, and later, federal initiatives rooted in European colonization (Thornton, 1987; Duran and Duran, 1995; Whitbeck, et al., 2004).

> After military defeat, American Indians experienced one of the most systematic and successful programs of ethnic cleansing the world has ever seen. They were relocated to what amounted to penal colonies, starved, neglected, and forbidden to practice their religious beliefs. Their children were taken from them and reeducated so that their language, culture, and kinship patterns were lost to

them. There are several aspects pertaining to the attempted continental decimation of numerous cultures over the period of 400 years that the analogy to the holocaust may not sufficiently convey" (Whitbeck, et al. 2004, p. 121).

Unlike many other historical accounts of "ethnic cleansing", American Indians did not immigrate to another country, they stayed despite experiencing horrific interactions with factions of the U.S. government. Although, it was illegal to leave the reservation, where they were completely reliant on the U.S. government for sustenance, as well as clothing and shelter (Whitebeck, et al. 2004).

Consequently, when viewing American Indian communities from an informal, purely subjective lens, there may be little evidence of culturally rich resources, any different from that of mainstream, or dominant culture. Thus, the disappearance of cultural engagement over a period of time that has afflicted many American Indian communities, coupled with the cultural heterogeneity that exists between tribal communities, renders the establishment of effective community-based interventions difficult. Furthermore, the psychological ramifications rooted in the acculturation process that negatively affected American Indian communities as a whole, has been suggested as a precursor to suicidality and psychiatric conditions in these communities (Alcántra and Gone, 2007; Gone, 2006). Therefore, protective factors (i.e., variables in an individual's life that promote healthy development/adaptation), like that of cultural identity and biculturalism become important to measure in efforts to improve the quality of life for American Indian populations, in continued efforts to reestablish life-ways and direction in the lives of a communities severed from its world-views and belief systems.

According to Alcántra and Gone (2007), the cultural discontinuity, or disintegration of American Indian life ways as a result of colonization is proposed to mediate psychopathology, therefore, utilizing culture in attempts to revitalize the important cultural life ways is important to transform individual and collective identity. Further, cultural continuity (i.e., land claims, self-government, health services, education, cultural facilities, etc.) was associated with reduced suicide rates in certain American Indian communities (Chandler and Lalonde, 2008).

> To the extent, then, that the temporal course of one's individual or cultural identity is somehow fractured or disabled, those persons and those whole communities that have suffered such broken ties to their past and future are, we have argued, put at special risk to suicide, just as achievements that serve to preserve or rebuild such ties work as protective factors that shield them from the threat of self-harm (Chandler and Lalonde, 2008; p. 4).

However, at present there exists a very small and inadequate literature base on Evidence-Based Practice (EBP) interventions and programs to deal with the sequelae of the historical events that have proven to be so destructive to the cultures, traditions, and families of American Indian tribes (Gone and Alcántra, 2007; Gone, 2003). Thus, it can be observed from contemporary American Indian circumstance, that disruption of a worldview has caused catastrophic damage to cultural identity of much of Indian country, as well as the ego development of American Indians at the individual level. There are many accounts of the tragedies felt by families in American Indian communities that are explicitly linked to federal policies that defined colonization of

contemporary America. Historically, colonization of what is now the United States involved the gross maltreatment of American Indians indigenous to this continent.

"Manifest Destiny" was the term coined that provided the clearance for the right of discovery, at the expense of American Indian occupancy (McDonald and Chaney, 2003). This perspective or ideology, which was made official by the Supreme Court in 1823, allowed Europeans to eliminate anybody who espoused a different worldview other than Christianity, and did not readily surrender. As a result, "Manifest Destiny" and its respective ideology swept through America, annihilating more than half of the American Indian population, defining the history of many American Indian populations from the 18th century through the early parts of the 20th century (Yellow Horse Brave Heart and DeBruyn, 1998; Whitbeck, et al., 2004). During this time American Indians were being engaged by military with superior weapons, and being forced to relocate by mass removal from their original lands. Usually, movements of American Indian tribes were directed west to areas that had no economic value (Thornton, 1987; Whitbeck, et al., 2004). Perhaps one of the most profound singular acts of genocide was the "Trail of Tears", which was likened to a death march across the U.S. by Cherokee from the South East. Upon arrival on reservations American Indians could not hunt, or practice their traditional spiritual ceremonies (Whibeck, et al., 2004). The U.S. government provided housing, blankets, and food allotments for the reservations, which was instrumental in tearing at the cultural fabric and mode of survival for American Indians.

During the time period from approximately 1800-1900 A.D., Boarding schools were created through the Bureau of Indian Affairs (BIA), which assumed control of education to American Indians under the "Civilization Division" of the Department of

the Interior (Yellow Horse Brave Heart, 1998). As a beginning to the assimilation period, federally operated boarding schools were conceived, as an attempt to "civilize" American Indians (Whitbeck, 2004; Yellow Horse Brave Heart, 1998; Gone, 2009). The first boarding school that began to accept students was the Carlisle Indian School, operating under a paradigm of assimilation (i.e., intentions were to teach American Indian children dominant cultural values) (Yellow Horse Brave Heart, 1998). Essentially, after military defeat, American Indian children were forcibly removed from their families and relocated to schools, often hundreds, or thousands of miles from their reservations. The boarding school period is often reflected on as the most devastating period in colonization. "Kill the Indian, save the Man" was the mantra of the boarding school era. During the boarding school period, children as young as 5 years old were punished for speaking their Native Languages, forced to cut their hair (a significant source of strength for many tribes), and forced to dress in western-style clothing. Children were not allowed to return to their families for long periods of time, some children died during this period, others were abused physically, sexually, and emotionally (McDonald and Chaney, 2003; Whitbeck, et al., 2004).

"Manifest Destiny" was then followed by a period of American Indian postcolonial history known as "Assimilation". Assimilation involved the understanding that American Indian traditional culture had been wholly decimated, and that the only way for American Indians to survive was to assimilate into mainstream culture. During this period, many American Indians involved in the relocation process were invited to relocate to urban areas (i.e., Minneapolis, San Francisco, etc.). Consequently, many of these individuals were dropped into urban areas, without support. Urban relocation

acted as a second removal from Native families, culture, and spirituality. An increase in behavioral and social problems was seen from many who were relocated. Relocation occurred around the 1950's. Interestingly, during this period (i.e., 1926) American Indians were finally recognized as U.S. citizens, illustrating the denigration felt by this population (Witco, 2006).

The last period of colonization has been termed "self-determination" (1970-present), which included the 1975 Indian self-determination act, giving American Indians the responsibility for their own education and the welfare of their own people. Self-Determination was instituted in order to lessen the burden on the U.S. government. Despite relative independence on their reservations, American Indians inherited calamity as a result colonization (Witco, 2006). The difficulties of readjusting to semi-independence, and attempts at reforming American Indian spirituality and cultural identity are illustrated in the following quote by an esteemed American Indian author. According to Deloria (2006):

> Even on the most traditional reservations, the erosion of the old ways is so profound that many people are willing to cast aside ceremonies that stood them in good stead for thousands of years and live in increasing and meaningless secularity. The consumer society is indeed consuming everything in its path. It is fair to say that the overwhelming majority of Indian people today have little understanding or remembrance of the powers possessed by the spiritual leaders of their communities (p. xvii).

Most conceptualizations of Historical Trauma in American Indians comes from history and reports based on persistent trauma among holocaust survivors/families

following World War II (Whitbeck, et al., 2004). Early conceptualization involved case studies documenting symptoms of survivors as well as their offspring. This was known as, "Survivor Syndrome", which included various symptom patterns that we commonly associate with Post Traumatic Stress Disorder (i.e., anxiety, depression, isolation, depersonalization, guilt, nightmares, intrusive thoughts) (Whitbeck, et al., 2004). Subsequent generations were then thought to be at a disadvantage due to the parenting of those with "Survivor Syndrome" resulting in first generation offspring "inheriting", or being directly exposed to, pathology through the dysfunctional environments that they were forced to grow up in. American Indians have undergone a similar situation, with intergenerational transmission of oppression originating with a complete loss of power and independence (Duran and Duran, 1995). Modern day American Indians, although more than two generations removed from the boarding school era are still feeling the effects with acculturative stress, which lends itself to the matriculating effects of assimilation (Duran and Duran, 1995).

With respect to the most troubling health disparity within "Indian Country", suicide afflicts American Indian communities at disproportionate rates relative to the general U.S. population (Alcántra and Gone, 2007). Suicide is the third leading cause of death among 10-14 year olds, and the second leading cause of death among 15-24 year old American Indian children and adolescents (National Center for Health Statistics, 2002; as cited in LaFromboise, 2010). Moreover, LaFromboise, Medoff, Lee, and Harris (2007) found that 19.7% of early adolescents from a Northern Plains reservations stated that they had attempted suicide at least once. As such, mental health disparities have consistently been linked to, and exacerbated by difficulties associated

with acculturation. According to Alcántra and Gone (2007), elevated suicide risk is a function of a deviation from normative developmental trajectories that ends in a negative outcome. Thus, the aim of prevention programs is to restore the individual to developmentally appropriate life trajectories, despite the experience of negative life events.

LaFromboise, Albright, and Harris (2010) investigated the relationship between levels of acculturation and hopelessness among American Indian adolescents. The sample consisted of 438 American Indian students representing 67 different tribes in high schools from reservation and urban areas across the Great Lakes, Great Plains, Northwest, and Southwest areas of the U.S. The authors administered measures of biculturalism (Living in Two Worlds Survey, LaFromboise, 1999) and hopelessness (The Beck Hopelessness Scale) (Beck, Weissman, Lester, and Trexler, 1974) to the children and adolescents. The authors also gathered demographic information as well as information on place of residence. Results indicated that adeptness in both, American Indian culture and dominant European culture, were negatively correlated with hopelessness (r=-0.337 and -0.301, respectively). Further statistical analyses suggested that adeptness in both, American Indian and White culture, contributed to lower scores on the hopelessness measure than those that had endorsed adeptness in one culture alone, or those respondents who reported low adeptness in both cultures (marginal identification). Thus, the investigation provides evidence that bicultural endorsement was related to less hopelessness than identification with either culture alone, or that of the case of those that identify as marginal in cultural/ethnic identity. Findings also supported the idea that identification with one culture is generally unproblematic,

whereas, lack of identification with any culture is problematic (LaFromboise, et al., 2010). Thus, empirical findings support the notion that bicultural competence shares a positive relationship to emotional health.

Furthermore, in a review of literature on suicidality in American Indian communities, Alcántra and Gone (2007) reported evidence on the protective effects of spirituality among American Indians. Specifically, Garoutte and colleagues (2003) reported that spirituality (i.e., high endorsement of cultural spiritual orientations) is associated with a decrease in the number of suicide attempts (as cited in Alcántra and Gone, 2007). Connectedness and social support from family, friends, and tribal leaders has also been found to reduce suicidal behaviors (Alcántra and Gone, 2007). Further, preservation of culture in American Indian communities (i.e., cultural continuity) was also found to reduce risk factors of suicide in certain American Indian communities.

Despite the research findings on the protective effects of cultural/ethnic identity in American Indian communities, at present, there lies a great disparity in the communities with respect to culturally motivated mental health interventions (Gone, 2003). Trimble (2000) asserts that American Indian youth, in particular, face complex challenges in order to integrate social and cultural information to formulate and develop an ethnic identity. A growing body of research has also found that poor mental health in American Indian youth may be associated with difficulties in Acculturation and stress related to the acculturation process (LaFromboise, Albright, and Harris, 2010). Hence, colonization may contribute to an embattled intrapersonal struggle for each American Indian, regardless of tribal orientation, with respect to psychocultural stress stemming from the necessity of American Indians to operate within two completely separate

cultural orientations (LaFromboise, Albright, and Harris, 2010). At first glance, however, it is apparent that American Indian communities are faced with sociocultural problems that require immediate intervention, even before a secondary or primary intervention involving cultural/ethnic identity. Contemporary findings on mental health epidemiology in American Indian communities provide a dark illustration of the specific issues that these communities are faced with. Though a comprehensive review of physical and mental health disparities is beyond the scope of the present investigation, suffice it to say that American Indians, at each level of organization (i.e., individual, familial, and communal), rank consistently among the highest in many indices of physical and mental health problems.

According to LaFromboise, et al. (2010), American Indians continue to cope with poverty, violence, and cultural trauma; which creates chronic stress and a heightened risk for mental illness. There is evidence that distress among American Indian adolescents begins relatively early. However, the sustained inevitability of acculturation of American Indians over the history of colonization has made ethnic/cultural identity and its relationship to mental health an important research endeavor to better meet the health needs of American Indians. For American Indian adolescents, acculturation can often result in feelings of intense anxiety because of the struggle to "walk in two worlds", a term describing the necessity of American Indians to negotiate their respective ethnic heritage as well as that of the dominant mainstream culture on a regular basis (LaFromboise, Albright, and Harris, 2010). Thus, American Indians experience heightened internal conflict as they live according to two very different value systems.

Thus, it appears that cultural identity serves as an important resource for contemporary American Indian populations. For example, Yu and Stiffman (2007) found that cultural pride and spirituality predicted less alcohol abuse among American Indian Adolescents. However, due to the fabric of our present society, the real challenge comes in being able to navigate both, one's traditional American Indian culture, and dominant Western culture. It seems that prevention and intervention efforts would be wise to support the development of the "hybrid" American Indian, capable of soundly operating within two different worldviews. Although such a goal is promising, perceived discrimination and other negative life events may contribute to psychopathology as well.

Whitbeck, McMorris, Hoyt, Stubben, and LaFromboise (2002), examined the contributions of risk factors for depressive symptoms associated with perceived discrimination, as well examining whether traditional cultural practices serve as a protective factor for a sample of American Indians from the upper Midwest. The authors maintain that perceived discrimination functions like other major life stressors (i.e., divorce, loss of a loved one). Accumulating evidence indicates that cultural identification may act as a protective factor to moderate psychological distress to some extent (Alcántra and Gone, 2007; LaFromboise, Albright, and Harris, 2010). Cultural identification has also been shown to contribute to prosocial behaviors and academic success among American Indian adolescents (Whitbeck, et al. 2001). Whitbeck and colleagues (2002) collected data through interviews with 287 adults (96 male, 191 female) American Indian caretakers and their children. Data collection was conducted on three reservations located in the upper Midwest, between 1998 and 1999. All reservations belonged to the same federally recognized ethnic group and, for

the most part, traditional practices and spiritual beliefs were similar between tribes. Participation in the study required each household to contain children who were enrolled tribal members in 5^{th}-8^{th} grade. Families were recruited randomly from tribal enrollment records, with the exception of one reservation, where all families were asked to participate. A high amount of households were single-parent homes, with the mother as the primary caretaker. Median income for the households was $15,000.

The study utilized the Center for Epidemiological Studies-Depression Measure (CES-D). Twenty-three percent of the sample scored in the range of probable clinical depression on the CES-D. The sample was predominantly female and the average age was 39 years. Parents were asked about retrospective parenting behaviors (i.e., parental alcoholism in their parents when they were growing up). Parental warmth and support were both measured to provide an indication of the degree to which respondents rated how often their mothers and fathers each displayed positive parenting behaviors. Participants were also asked to measure the degree to which their parents exhibited negative parenting behaviors. Participants were also asked about negative childhood events and conduct problems (i.e., neglect, physical abuse, other family mental health problems, family violence, parents' marital problems, of close relative suicide).

On average adults reported almost six of thirteen possible negative parenting behavior experiences during childhood development. Respondents were also asked about current stressors in their lives. Respondents were also asked about negative life events (life threatening event, close friend or relative death). Of the 12 possible negative life events that participants could have endorsed, the respondents reported experiencing about 2 events during the past year. Perceived discrimination was

measured with a ten-item scale. Social support and involvement in traditional activitieswere also measured. Social support was measured on a seven-item scale. Traditional activities were made up of three different measures, participation and attendance of powwow activities, knowledge and use of tribal language, and other traditional activities derived from personal communications with elders, staff, and advisory board members of the reservation. The cultural activities that were measured included such activities as: beading, making powwow outfits, hunting, and spearfishing, Alcohol use was measured by items asking the respondent how often the participant drank, how much they drank, and how many days he or she consumed 5+ drinks.

To analyze the results, the authors utilized hierarchical logistic regression analyses to assess unique contributions of the indicators (i.e., social support, current stressors, childhood events and behaviors, family background factors) on depression. The final model indicated that the primary predictors of exceeding the CES-D cutoff among American Indian adults in the upper Midwest were current experience of negative life events, greater perception of discrimination (primarily among those who did not participate in traditional activities), and current alcohol consumption. Further, social support and traditional activities served as protective factors against depressive symptoms as both factors had strong negative effects on the whether a participant exceeded the cutoff on the CES-D (Whitbeck, et al., 2002).

Most importantly, however, perceived discrimination was a powerful predictor of depressive symptoms among NA adults. Those experiencing discrimination were two times more likely to exceed the CES-D cut off for depressive symptoms

(Whitbeck, et. al., 2002). Conversely, Traditional practices served as a protective factor, which reduced the likelihood of exceeding the cut-off for depressive symptoms by 29% for each unit of increase. Thus, those that endorsed engagement in traditional practices (i.e., attending powwows, speaking their traditional language, engaging in traditional activities) were less susceptible to depression, though perceived discrimination proved to be a powerful indicator of depressive symptoms among the American Indian adult sample.

The protective influence of traditional practice engagement on perceived discrimination was strongest for those that reported above average levels of traditional activities. This also was associated with increased perceived social support. For those that reported below average levels of traditional practices, high perceived discrimination was associated with depressive symptoms. The underlying mechanism of protection is unclear, but could be related to socialization with those who endorse similar engagements. Whitbeck and colleagues (2002) also reported a significant association between alcohol use and depression.

Szalacha, et al. (2003), maintain that the factors that may mitigate the impact of perceived discrimination include those rooted in race and ethnicity. Further, the authors assert that competence in relating to one's own ethnic group (i.e., enculturation) and biculturalism, among others, act to buffer the negative effects of discrimination (Szalacha, et al., 2003). According to Luthar and McMahon (1996), the process of being able to effectively navigate multiple cultural milieus may serve as a protective factor in the emergence of a resilient, adaptive outcome. Therefore, ethnic identity in general, and biculturalism in particular may well be related to positive outcomes among

ethnic minority populations, especially those that are faced with the challenge of "living in two worlds".

The importance of the relationship between self-efficacy and biculturalism in American Indians is founded on the premise that any relationship between the two may promote untapped aspects of resilience. Resilience affirms that, both, a solid ethnic identity and a positive self-efficacy are key factors in the determination of whether individuals achieve salient developmental tasks, or succeed according to societal standards (e.g., academic achievement) (LaFromboise, Coleman, and Gerton, 1993; LaFromboise, Albright, and Harris, 2010; David, Okazaki, and Saw, 2009; Masten, 2011; Masten, Cutuli, Herbers, and Reed, 2009). Further, education is often used as an indicator of positive adaptation in society due to its correlation with later life success (Masten, 1999). Previous research has done well to establish links, albeit indirectly, between self-efficacy (social cognitive theory), biculturalism, and resilience; however, there has been very little research that has directly explored the relationship between such theoretical concepts. According to Waller (2002), the problem with the literature base on resilience is that culture and class are rarely considered.

The present study examined the relationships between biculturalism, bicultural self-efficacy, and resilience on measures of mental health in American Indians. Previous work has identified the relationship between biculturalism and mental health (LaFromboise, Albright, and Harris, 2010; David, Okazaki, and Saw 2009) and resilience and mental health (Masten, 1999; 2001; Waller, 2002). The purpose of the present study was to examine the degree to which bicultural self-efficacy can predict mental health symptoms in conjunction with measures of biculturalism and resiliency.

Specifically, we attempted to provide the scientific community with a basic understanding of the relationship between biculturalism and protective factors that have been identified as being integral to adaptive outcomes at the individual level (i.e., resilience), namely, self-efficacy and ethnic identity. Presently, the project investigator has encountered no such study, which supplements the research areas of resilience and biculturalism with American Indians in general, and Northern Plains American Indians in particular.

Albright and LaFromboise (2010) investigated hopelessness and ethnic/cultural identification in American Indians, culminating in findings that emphasize the importance of cultural identity, in that the authors were able to establish a relationship between acculturation and hopelessness in American Indians. However, Albright and LaFromboise (2010) focused primarily on the relationship between cultural identity and hopelessness, without attention to the experience of negative life events that may have confounded the findings by impacting mental health in their sample. The present study sought to extend the efforts of Albright and LaFromboise (2010) by providing a measure of negative life events/experiences that may contribute to psychopathology. An exploration of the extent of trauma experienced by study participants may also be the first step in attempting to understand the implications of negative life experiences on the development of ethnic identity.

LaFromboise, Albright, and Harris (2010) investigated the relationship between hopelessness, levels of acculturation, and residence (i.e., urban or rural settings). Results suggested that identification with either culture was related to less hopelessness. Although, those that endorsed high identification in both, White and

American Indian cultures reported experiencing less hopelessness than those that reported identification with one culture (LaFromboise, Albright, and Harris, 2010). The present study aimed to advance the findings by LaFromboise, Albright, and Harris (2010), by implementing a measure of bicultural self-efficacy, as well as a measure of biculturalism to uncover possible relationships between the two measures. The present investigation also made attempt to uncover the importance of bicultural self-efficacy in American Indian populations, with respect to their perceived ability to effectively navigate two different cultural environments. Moreover, the present study explored the relationship of biculturalism to resilience, or present functioning of American Indian college students from on and off-reservation institutions of higher education. During data collection the investigators also collected and analyzed measures of negative life events specific from each participant, providing a broad illustration of the relationship, if any, between negative life experiences, mental health indicators, and bicultural self-efficacy.

David, Okazaki, and Saw (2009) attempted to measure bicultural self-efficacy, as well as validate a measure based on their findings. In recognizing the importance of developing a measure of bicultural self-efficacy, the authors found that bicultural self-efficacy was related to mental health in bicultural individuals. However, the aforementioned analysis and validation study was not representative, as it did not report the utilization of American Indian participants. Therefore, the present study provides an opportunity to advance the validation of their measure by exploring relationships between the bicultural self-efficacy scale and mental health in American Indian college students and American Indian community members.

However, the most important implications for investigating the protective effects of bicultural self-efficacy result from the difficulty with which individuals experience through the identification with a monocultural or marginalized ethnic identity (LaFromboise, Albright, and Harris, 2010; Alcántra and Gone, 2007). Self-efficacy as a psychological construct has been widely regarded as a protective factor in the literature base concerned with resilience (Masten, 2001; Waller, 2001). Thus, both psychological constructs, self-efficacy and ethnic identity, have been found to play a protective function in individuals that have been exposed to risk factors in their lives; in that, they have both been implicated in the individual achievement of salient developmental tasks (i.e., educational achievement), and/or absence of psychopathology.

Research Purpose and Hypothesis

To summarize, the present study utilized scores on the bicultural self-efficacy scale to explore relationships between bicultural self-efficacy, resilience, and negative life events, or risk. Moreover, relationships between a measure of exposure to negative life events, a measure of bicultural self-efficacy, and a measure of biculturalism was explored within the analyses; as well as the interaction of the aforementioned predictors on a number of outcome variables (i.e., a measure of self-reported resilience (Connor-Davidson, 2003), and scores on psychological assessments). Next, I sought to confirm previous findings regarding the relationship between the experience of negative life events, or risk, and the difficulty forming an ethnic identity (LaFromboise, Coleman, and Gerton 1993; Newman, 2005). Specifically, due to findings from empirical literature on ethnic identity development, it may follow that an individuals' ethnic

identity may be impacted by the experience of negative life events. Thus, we can expect that higher cumulative scores on a measure of negative life events an individual experiences, the less cohesive their ethnic identity according to measures of acculturation, enculturation, and biculturalism. Similarly, the endorsement of negative life events may also impact one's bicultural self-efficacy. Furthermore, the relationship between a measure of bicultural self-efficacy and a measure of biculturalism (NPBI-III) was investigated in order to provide evidence of the concurrent validity between the related measures of ethnic identity and bicultural self-efficacy. Ultimately, we believed that:

1. Scores on the resilience measure will be negatively correlated with scores on the psychological assessments (i.e., Beck Hopelessness Scale, BHS; Beck Anxiety Inventory, BAI), consistent with previous findings (Hill, 2009).
2. Scores on the Stressful Life Events Questionnaire will share a positive relationship with scores on measures of psychopathology (i.e., BAI, BHS).
3. High scores on the resilience inventory will negate the impact of negative life events, functioning to protect individuals from such sequelae, thereby reducing elevated rates of psychopathology.
4. Scores on the NPBI-III will be moderately correlated with the BSES, providing evidence of the concurrent validity between the related constructs.
5. Individuals who identify as bicultural, enculturated, or assimilated, as assessed by the NPBI-III will endorse less psychopathology (i.e., lower scores on the BAI, BHS) than those that identify as marginal. This

hypothesis is consistent with findings by LaFromboise, Albright, and Harris, (2010).

6. BSES scores will be negatively correlated with indices of anxiety and hopelessness in contributing to the prediction of anxiety and hopelessness.
7. Scores on the Stressful Life Events Inventory will share a negative relationship with scores on the BSES.
8. Subscale scores on the BSES will be positively correlated with resilience scores.
9. Residence (i.e., on or off reservation) will predict levels of hopelessness within the sample, consistent with findings of (LaFromboise, Albright, and Harris, 2010).

CHAPTER II

METHOD

Participants

The present investigation consisted of 198 (68 Male, 130 Female) American Indian college students and community members from the University of North Dakota (UND) and Turtle Mountain Community College (TMCC) campuses. Participants ranged from ages 18-74 years. Participants were recruited from the University of North Dakota campus through the Psychology department, Nursing department, Indian Studies Department, and the American Indian Student Services building on the UND campus. Recruitment efforts at UND also occurred through the internet-based recruiting system (SONA) utilized for research on campus. Recruitment efforts on the University of North Dakota campus also included outreach to all American Indian students and related programs on campus through UND e-mail listserves. Participant data was also collected at the Time-out Wacipi (pow-wow) at the University of North Dakota. During the pow-wow, a table was set up for recruitment and data collection throughout the weekend of April 19, 2013 through April 21, 2013.

Recruitment at Turtle Mountain Community College involved the receipt of approval from Aberdeen Indian Health Service Institutional Review Board, as well as the Turtle Mountain Community College President, Vice-president, and Dean of

students. American Indian participants represented a variety of Indigenous communities from around the United States and Canada.

Measures

Demographic Questionnaire is a 19-item assessment of basic demographics (i.e. age, race, gender, education, employment, income, etc.) along with assessment of; use of controlled substances, engagement in sedentary behavior, and basic health information regarding known illnesses. The demographic questionnaire used in this investigation can be found in Appendix B.

The *Connor-Davidson Resilience Scale* (CD-RISC) (Connor and Davidson, 2003) is a brief, 25-item assessment measure used to quantify resilience, each item rated on a five-point scale (0-4). Total score for the CD-RISC ranges from 0-100, with greater resilience reflected by higher score on the measure. The scale is based on how the subject has felt in the month prior to assessment (Connor and Davidson, 2003). Internal consistency of the CD-RISC using Cronbach's alpha was .89 in the general population of the normative sample(Connor and Davidson, 2003). Test-retest reliability was assessed with a group of PTSD patients, which demonstrated a high level of agreement between scores (intra-class correlation coefficient=.87) at time 1 and time 2, two weeks apart. Internal consistency for the present scale within the Northern Plains American Indian sample was .912 for the CD-RISC. The CD-RISC can be found in Appendix E.

Beck Anxiety Inventory (BAI) (Beck, Epstein, Brown, and Steer, 1988) is a 21-item self-report scale that measures the symptoms of anxiety. Symptoms are rated on a four-point scale from 0 (not at all) to 3 (Severely – could barely stand it). Total scores

range from 0 to 63. The following cut-off scores have been suggested: 0-7 (minimal anxiety), 8-15 (mild anxiety), 16-25 (moderate anxiety), and 26-63 (Severe anxiety) (Beck and Steer, 1993). Internal consistency is reported for the general population to be at .92 and item-total correlations ranging from .3-.71. One-week test-retest BAI score was .75. An alpha coefficient for the present study of .931 was found for the use of the BAI in the Northern Plains American Indian sample. A sample of the BAI can be found in Appendix H.

Beck Hopelessness Scale (BHS) (Beck et al., 1988; Beck, Weissman, Lester, and Trexler, 1974) is a 20-item self-report questionnaire. The BHS assesses respondent's degree of negativity and pessimism about the future. The items on the BHS are scored true-false. Nine items are keyed false and 11 are keyed as true. Each item is assigned a score of 0 or 1. The score is obtained by adding the scores for each item resulting in a score from 0 to 20. Internal reliability coefficients range from 0.83-0.93, and the item total correlation coefficient ranged from .39 to .76. Three factors emerged from a factor analysis: Feelings about the future, loss of motivation, and future expectations. The BHS was found to be a strong predictor of suicidal intent (Beck et al., 1974). Kovacs, Beck, and Weissman (1975) found that among suicide attempters, hopelessness was a better predictor of current suicide ideation than depression. According to LaFromboise Albright, and Harris (2010), alpha coefficients of .76 and .83 were found in the cross-cultural use of the BHS with American Indian adolescents. An alpha coefficients for the present study of .820 was found for the use of the BHS in the Northern Plains American Indian sample. The BHS can be found in Appendix G.

The *Northern Plains Biculturalism Inventory-III* (NPBI-III) is a twenty-item questionnaire used to assess identification with Northern Plains American Indian and Midwestern European American (White) culture. Specifically, the assessment measures level of cultural identification among Northern Plains American Indians to both American Indian traditional culture and European-American culture. The inventory focuses on social behavior assumed related to underlying constructs described as attitudes, beliefs, worldview and acculturation (Allen and French, 1994). Factor analysis of the revised version (NPBI-R) revealed two factors inherent to the measure: American Indian Cultural Identification (AICI), and European Cultural Identification (EACI). A high score on the AICI and a low score on the EACI reflects a traditional orientation, whereas, a low score on the AICI and a high score on the EACI reflects immersion into the majority European American cultural orientation. High scores on both EACI and AICI indicate a bicultural orientation, whereas, low scores on both, EACI and AICI, indicate that the individual is marginal in cultural orientation. The measure demonstrated good internal consistency with a Cronbach's Alpha coefficient of .77. Factor 1 associated with AICI obtained an alpha coefficient of .87. Factor 2 associated with EACI obtained an alpha coefficient of .74. In the current study, the internal consistency of the EACI was .631. The internal consistency of the AICI was .843. The NPBI-III can be found in Appendix F.

Stressful Life Events Questionnaire is an assessment derived from the *Psychiatric Epidemiology Research Interview Life Events Scale* (PERILES) (Dohrenwend, Krasnoff and Askenasy, 1994). The researchers modified the PERILES with events added that are commonly experienced in childhood and adolescence within

American Indian communities, which are perceived as stressful based on the empirical research of age appropriate risk factors. The present scale is comprised of 97 items representing possible stressful life experiences. Items are answered in likert-type format on a scale from 0-7, with 0 indicating that the test subject did not experience the event, and 1-7 indicating that the test subject experienced the event and perceived the event to be minimally stressful (i.e. "1") to extremely stressful (i.e. "7"). Participants are instructed to identify symptoms, based on experience and perceived severity, over the course of their life, up to time of assessment. Internal consistency for the Stressful Life Events Questionnaire was .97 for the Northern Plains American Indian sample within the present investigation. A sample of the SLEQ can be found in appendix D.

Bicultural Self-Efficacy Scale (BSES) (David, Okazaki, and Saw, 2009) is an assessment that measures an individual's perceived efficacy to operate within two cultural knowledge systems or structures. The 25-item measure is based on a six-factor model of bicultural competence proposed by LaFromboise, Coleman, and Gerton (1993); social groundedness, communication, positive attitude toward both cultural groups, knowledge of cultural beliefs and values, Role repertoire, and Bicultural beliefs. Evidence of internal consistency (Social Groundedness = .91; Communication Ability = .79; Positive Attitudes = .89; Knowledge of Cultural Beliefs and Values = .80; Role Repertoire = .69; and Bicuultural Beliefs = .77) and test-retest reliability was found as the test-retest correlations between BSES administrations (two weeks apart), ranged from .62-.78 for the six dimensions, or subscales, within the instrument (i.e., Social Groundedness, Communication Ability, Positive Attitudes, Knowledge, Role Repertoire, and Bicultural Beliefs) (David, Okazaki, and Saw, 2009). In the present

investigation the internal consistency coefficients for the six subscales that make up the BSES are as follows: Social Groundedness (.661), Communication Ability (.631), Positive Attitudes (.788), Knowledge (.794), Role Repertoire (.114), Bicultural Beliefs (.806). The BSES can be found in Appendix C.

Procedure

The present study consisted of a sample of 198 American Indian participants. 152 participants were recruited from the University of North Dakota (UND) campus, including students and community members. Recruitment and data collection also occurred during the UND Time-out Wacipi (pow-wow) held in April, 2013. In all, 152 participants were recruited from the University of North Dakota campus, to include the pow-wow, and 46 participants were recruited from the Turtle Mountain Community College in Belcourt, North Dakota. Recruitment efforts were in the form of flyers placed in various buildings on the UND campus and by mass recruitment at the American Indian Student Services (AISS). During the Time-out Wacipi, project investigators collected data during the pow-wow over the course of the weekend. Individuals were tested in small groups of 1-10 participants at AISS and at the Pow-wow. At Turtle Mountain Community College, participant data was collected in the commons area of the college. All participants were given an opportunity to agree/refuse to participate via an informed consent form. After obtaining an informed consent, participants were then given a demographic questionnaire along with packet of questionnaires to complete, consisting of the following assessments: Stressful Life Events Questionnaire as adapted from the *Psychiatric Epidemiology Research Interview Life Events Scale* (PERILES), Beck Anxiety Inventory (BAI), Beck

Hopelessness Scale (BHS), Bicultural Self-Efficacy Scale (BSES), Northern Plains Bicultural Inventory-Third Edition (NPBI-III), and the Connor-Davidson Resilience Scale (CD-RISC). Participation, as outlined in the informed consent form, required approximately 1.5 hours of the participant's time. Participants were offered research credit for participation in the experiment. If participants' courses did not require participation in psychological research projects, then the participants were given $20.00 as compensation for participation in the experiment. Participants were then debriefed and informed of the study objectives and importance of the study. The participants were also informed that their personal information is held in confidence by the researchers, in a locked cabinet within the Native Research Team Lab in the School of Medicine and Health Sciences at the University of North Dakota.

CHAPTER III

RESULTS

Prior to analysis, following data collection and entry, the data set was examined for accuracy of data entry as well as to identify any missing data. Subsequently, the first 14 cases were removed due to extensive missing data from errors in data collection. Grade point average (GPA) and Credits Completed for students were deleted from the analysis due to missing values on more than 5% of cases. At the item level, missing data was handled using mean-substitution, whereby item means were calculated from the overall sample, then inserted into each missing item in order to complete each measure, and include the variable in statistical analysis. A missing variable analysis confirmed that such measures were taken on approximately 12.6% of cases of the Stressful Life Events Questionnaire, 1.5% of cases for the Resilience measure, 3.0% of cases for the NPBI-III, .5% of cases on the BAI, and as much as 3.5% of cases between the subscales that comprise the BSES.

Table 1 includes descriptive statistics for each of the predictor variables, as well as criterion variables utilized in the statistical analyses within the present investigation. In table 2 the bivariate correlations between predictor variables and the criterion variables are presented. In evaluating the variables for multicollinearity measures of tolerance and the Variable Inflation Factor (VIF) were calculated within each separate analysis. Typically, tolerance that approaches 0, and a Variable Inflation Factor

(VIF)that approaches 10 indicates that multicollinearity exists between the independent variables. Further, correlations among predictor variables above .70 may also be suggestive of multicollinearity (Tabachnick & Fidell, 2007). Examination of correlations between the predictor variables revealed that the highest correlation is between Positive Attitudes and Social Groundedness (r=.68, p<.01), both subscales on the BSES. Further, an evaluation of the collinearity diagnostics in the regression of the model with all 11 predictors entered, resulted in ranges of VIF (1.233-2.944) tolerance (.334-.888), and intercorrelations (.006-.682) among predictor variables, which was not indicative of any problems with multicollinearity for the analyses herein.

Table 1

Means and Standard Deviations of Independent and Dependent Variables

Variables	Mean	Std. Deviation	N
Age	30.6325	12.11693	198
Stress	135.8126	114.085	198
Resilience	51.35	11.424	198
AICI	38.7382	7.62096	198
EACI	27.1989	4.43651	198
BAI	8.0069	9.171	198
BHS	3.17	3.311	198
Social Groundedness	6.577	1.49393	198
Communication	5.5176	1.48153	198
Bicultural Beliefs	6.6506	1.45981	198
Role Repertoire	6.626	2.25345	198
Knowledge	6.624	1.40876	198
Positive Attitudes	6.7644	1.37641	198

Table 2

Pearson r Correlation Matrix of Criterion and Predictor Variables Utilized within the Study

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. BHS	1												
2. BAI	.284**	1											
3. AGE	0.022	-0.061	1										
4. Stress	.237**	.371**	.263**	1									
5. Resilience	-.370**	-.360**	0.032	-.279**	1								
6. AICI	0.006	-0.032	.238**	0.108	.227**	1							
7. EACI	0.009	0.081	0.08	-0.05	0.106	.175*	1						
8.Bicultural Beliefs	-.170*	0.004	.146*	-0.014	.261**	0.04	.283**	1					
9. Role Repertoire	0.091	0.043	0.05	0.062	0.078	0.006	0.065	.277**	1				
10. Knowledge	-.250**	-0.094	.194**	-0.074	.357**	.381**	.229**	.597**	.222**	1			
11. Positive Attitudes	-.216**	-0.008	0.037	-0.073	.372**	.165*	.400**	.647**	.292**	.656**	1		
12. Communication	-.217**	-.214**	0.077	-0.117	.380**	.464**	.367**	.475**	.166*	.627**	.525**	1	
13. Social Groundedness	-.234**	-0.037	0.013	-0.072	.340**	.184**	.329**	.577**	.217**	.674**	.682**	.525**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The primary analyses were conducted using a series of simultaneous multiple regression analyses examining the significance of each predictor after all others have been entered into the equation. The multiple regression analyses were conducted with resilience, age, Bicultural Self-Efficacy (as measured by the six constructs of the BSES: Social Groundedness, Communication, Positive Attitudes, Knowledge, Role Repertoire, and Bicultural Beliefs), European American (EACI) and American Indian Cultural Identity (AICI) subscales of the NPBI-III, and Stressful life events raw score as predictor variables. The variables to be predicted utilizing the simultaneous multiple regression analyses, or the criterion variables, were anxiety and hopelessness (as measured by the BAI and BHS, respectively). Means and standard deviations for each of the 11 predictors, and each of the two dependent variables are presented in table 1.

For each analyses the regression coefficient, Beta weight, t-value, and squared semi-partial correlations are presented. The regression coefficient indicates how much the dependent variable changes for each unit change in the predictor variable. The Beta (β) weight represents the amount of change in the dependent variable in standard deviation units, for each standard deviation change in the predictor variable. The t-value is used to address whether the percent of variance uniquely accounted for by that predictor is significantly greater than zero. Finally, squaring the semi-partial correlation indicates the percent of variance uniquely accounted for by that predictor variable.

Results of the simultaneous multiple regression analysis with the variables of Age, Stress, Resilience, AICI, EACI, Bicultural Beliefs, Role Repertoire, Knowledge, Positive Attitudes, Communication, and Social Groundedness subscales of the BSES predicting BAI are displayed in table 3. Results of simultaneous multiple regression

analysis indicate that the predictor variables of Age (β =-0.176, t=-2.569, p=0.011), Stress (β =0.309, t=4.497, p=<.001), Resilience (β =-0.279, t=-3.873, p=<.001), EACI (β =0.145, t=2.048, p=<0.05), and Communication (β =-0.299, t=-3.253, p=0.001) each contribute to the prediction of Anxiety, as measured by the BAI. Increases in Age, Resilience, and Communication ability, were associated with decreases in anxiety. In contrast, as stress and EACI increased anxiety increased as well.

Results of the simultaneous multiple regression procedure with BHS as the criterion variable and Age, Stress, Resilience, AICI, EACI, Bicultural Beliefs, Role Repertoire, Knowledge, Positive Attitudes, Communication, and Social Groundedness subscales of the BSES as the predictor variables are presented in table 4. Results of the analyses indicated that the predictor variables of Resilience (β =-0.275, t=-3.633, p=<.001), AICI (β =0.16, t=1.947, p=0.053), and Role Repertoire (β =0.169, t=2.46, p=<.05) were significant contributors in the prediction of Hopelessness. Specifically, Hopelessness was positively associated with Role Repertoire and AICI, albeit, weakly, while having a negative relationship with Resilience.

Table 3

Simultaneous Multiple Regression with BAI as the Dependent Variable

	B	β	t	Part^2
Age	-0.133	-0.176	-2.569**	0.024964
Stress	0.025	0.309	4.497***	0.076729
Resilience	-0.224	-0.279	-3.873***	0.056644
AICI	0.143	0.119	1.517	0.008649
EACI	0.3	0.145	2.048*	0.015876
Bicultural Beliefs	0.657	0.105	1.15	0.005041
Role Repertoire	0.12	0.029	0.451	0.000784
Knowledge	0.158	0.024	0.228	0.000196
Positive Attitudes	0.666	0.1	0.977	0.0036
Communication	-1.848	-0.299	-3.253***	0.04
Soc. Groundedness	0.111	0.018	0.189	0.000144

*= Significance at $p \leq .05$, **=Significance at $p \leq .01$, ***=Significance at $p \leq .001$

Table 4

Simultaneous Multiple Regression with BHS as the Dependent Variable

	B	β	t	$Part^2$
Age	-0.006	-0.021	-0.299	0.000361
Stress	0.003	0.113	1.568	0.010201
Resilience	-0.08	-0.275	-3.633***	0.055225
AICI	0.07	0.16	1.947*	0.015876
EACI	0.084	0.112	1.505	0.009409
Bicultural Beliefs	0.053	0.024	0.247	0.000256
Role Repertoire	0.248	0.169	2.46**	0.025281
Knowledge	-0.307	-0.13	-1.167	0.005625
Positive Attitudes	-0.124	-0.052	-0.481	0.000961
Communication	-0.241	-0.108	-1.119	0.005184
Soc. Groundedness	-0.151	-0.068	-0.681	0.001936

*= Significance at $p \leq .05$, **=Significance at $p \leq .01$, ***=Significance at $p \leq .00$

Hypothesis 1 was that scores on the resilience measure will be negatively correlated with scores on the psychological assessments (i.e., Beck Hopelessness Scale, BHS; Beck Anxiety Inventory, BAI). Results from a bivariate correlation matrix (see table 2) supported the hypothesis, as the scores on the resilience measure were negatively correlated with scores on the measures of psychopathology, namely, feelings of hopelessness (r=-.370, p<.01), and anxiety (r=-.360, p<.01). Second, Hypothesis 2 was that scores on the Stressful Life Events Questionnaire would be positively related to measures of psychopathology (i.e., BAI, BHS). The hypothesis was supported in the analysis as cumulative risk factors, or self-reported lifetime risk, was positively correlated with scores on measures of hopelessness (r=.237, p<.01), and anxiety (r=.371, p<.01)(See table 2).

Next, in Hypothesis 3 we were interested in whether resilience scores would moderate the impact of self-reported risk experienced on measures of psychopathology. In order to test the hypothesized moderating effect of resilience on the relationship

between lifetime risk experienced and psychopathology, namely anxiety and hopelessness, we calculated simultaneous regression analyses with centered variables and their cross-products according to statistical framework recommended by Baron and Kenny (1986). First, however, we calculated a series of simultaneous multiple regression equations predicting levels of hopelessness and anxiety based on participants' resilience and cumulative risk experienced. The simultaneous multiple regression equation with hopelessness as the criterion variable was significant ($F(2,195)=18.021$, $p<.001$) with an R^2 of .156. Results indicated that resilience significantly contributed to the prediction of hopelessness (Beta=-0.329, t=-4.807, p<.001). Furthermore, Risk was also a significant contributor to the prediction of hopelessness (Beta=.145, t=2.116, p<.05) (see table 5).

Table 5

Simultaneous Multiple Regression with BHS as the Dependent Variable and Resilience and Stress as Predictor Variables

	b	β	t	$Part^2$
Resilience	-0.095	-0.329	-4.807**	0.099856
Stress (Risk)	0.004	0.145	2.116*	0.019321

*= Significance at $p \leq .05$, **=Significance at $p \leq .01$,

The regression analysis predicting participants levels of self-reported anxiety based on resilience and risk, was significant, (F (2, 195)=25.76, $p<.001$) with an R^2 of .209. Resilience was a significant contributor to anxiety (Beta=-0.279, t=-4.201, $p<.001$), and lifetime endorsement of risk significantly predicted anxiety (Beta=0.293, t=4.42, $p<.001$) (see table 6).

Table 6

Simultaneous Multiple Regression with BAI as the Dependent Variable and Resilience and Stress as Predictor Variables

	b	β	t	$Part^2$
Resilience	-0.224	-0.279	-4.201***	0.071824
Stress (Risk)	0.024	0.293	4.42***	0.078961

*= Significance at $p \leq .05$, **=Significance at $p \leq .01$, ***=Significance at $p \leq .00$

Finally, we calculated separate regression equations with the centered predictor variables of resilience and self-reported cumulative negative life events (risk) and their interaction terms with measures of psychopathology as the criterion variables. First, the results indicated that the interaction of stress and resilience was not significant when predicting anxiety. Next, the results of the simultaneous multiple regression analyses using resilience and self-reported cumulative negative life events (risk) and their interaction revealed a significant regression equation with hopelessness as the criterion variable, (F (3, 194)=14.723, $p<.001$) with an R^2 of .185. A subsequent analysis of the interaction was conducted by testing the impact of risk on hopelessness at high levels of resilience (+1sd above the mean of resilience), at average levels of resilience (at the mean of resilience) and at lower levels of resilience (1sd below the mean of resilience). The results indicated that stress significantly predicted hopelessness at low levels of resilience (β =.008) but not at medium (β =.003) or high (β =.002) levels of resilience (see table 7).

Our fourth hypothesis was that scores on the NPBI-III would be moderately correlated with the scores on the BSES, providing evidence of the concurrent validity between the related constructs, utilized to measure acculturation and bicultural identity within the sample (i.e., BSES, NPBI-III). The hypothesis was supported in the analysis

as scores on the AICI scale were positively related to those on the EACI scale(r=.175, p<.05); as well as Knowledge (r=.381, p<.01), Positive Attitudes (r=.165, p<.05), Communication (r=.464, p<.01), and Social Groundedness (r=.184, p<.01) on the BSES, but AICI was found to be unrelated to Bicultural Beliefs and Role Repertoire on the BSES (See table 2). Further, the EACI subscale on the NPBI-III was positively related to Bicultural Beliefs (r=.283, p<.01), Knowledge (r=.229, p<.01), Positive Attitudes (r=.400, $p<.01$), Communication (r=.367, p<.01) and Social Groundedness (r=.329, p<.01) (See table 2).

Table 7

Simultaneous Multiple Regression with BHS as the Dependent Variable and Resilience and Stress as Predictor Variables with Interaction

	B	β	t	$Part^2$
(Constant)	3.027		13.702	
Stress	0.003	0.112	1.633	0.011236
Resilience	-0.09	-0.31	-4.568***	0.087616
Resilience x Stress (Risk)	0	-0.177	-2.648**	0.029584

*= Significance at $p \leq .05$, **=Significance at $p \leq .01$, ***=Significance at $p \leq .00$

With hypothesis 5 we were interested in whether individuals who identify as bicultural, enculturated, or assimilated, as assessed by the NPBI-III will endorse less psychopathology (i.e., lower scores on the BAI, BHS) than those that identify as marginal. In order to test this hypothesis a simultaneous multiple regression analysis was calculated to evaluate whether cultural identification, as measured by continuous scores on the AICI and EACI scores on the NPBI-III predicted scores on the BAI and BHS. The regression equation testing the prediction of anxiety by degree of cultural identification on the NPBI-III, was not significant (F(2,195)=.859, p>.05) with an R^2 of .009 (See table 8). Likewise, a regression equation testing the prediction of

hopelessness by degree of cultural identification was not significant ($F(2,195)=.009$, $p>.05$) with an R^2 of .000 (See table 9).

Table 8

Simultaneous Multiple Regression with BAI as the Dependent Variable and AICI/EACI Subscales of NPBI-III as Predictor Variables

	b	β	t	Part2
AICI	-0.058	-0.048	-0.66	0.002209
EACI	0.184	0.089	1.23	0.007744

*= Significance at $p\leq.05$, **=Significance at $p\leq.01$, ***=Significance at $p\leq.00$

Table 9

Simultaneous Multiple Regression with BHS as the Dependent Variable and AICI/EACI Subscales of NPBI-III as Predictor Variables

	b	β	t	Part2
AICI	0.002	0.004	0.06	0.000016
EACI	0.006	0.008	0.11	0.000064

*= Significance at $p\leq.05$, **=Significance at $p\leq.01$, ***=Significance at $p\leq.00$

In order to further examine whether cultural identification influenced anxiety or hopelessness a series of one-way ANOVAs were conducted with anxiety and hopelessness scores as the dependent variable and Group (bicultural, assimilated, traditional, marginal) as the independent variable (see table 10 and 11). No significant main effects were found for mean levels of hopelessness ($F(3, 194)=.259$, $p>.05$), or for mean levels of anxiety ($F(3, 194)=1.211$, $p>.05$).

Table 10

Means and Standard Deviations of a One-Way (NPBI-III Classification) ANOVA with BHS as the Dependent Variable

Raw Scores	Traditional n=41	Assimilated n=40	Marginal n=59	Bicultural n=58
BHS				
Mean	3.29	3.00	2.95	3.43
SD	(3.18)	(3.46)	(3.10)	(3.56)

Table 11

Means and Standard Deviations of a One-Way (NPBI-III Classification) ANOVA with BAI as the Dependent Variable

Raw Scores	Traditional n=41	Assimilated n=40	Marginal n=59	Bicultural n=58
BAI				
Mean	7.05	9.15	6.61	9.32
SD	(7.21)	(9.78)	(7.42)	(11.28)

A multiple regression was calculated to predict hopelessness based on BSES subscales as the predictor variables (see table 12). A significant regression equation was found ($F(6,191)=3.657$, $p<.01$), with an R^2 of .103. In particular, Role Repertoire ($\beta = 0.176$, $t=2.46$, $p=<.05$) was the sole significant contributor in the prediction of hopelessness within the BSES construct, in that Role Repertoire was positively related to hopelessness. Specifically, for every one standard deviation change in Role Repertoire, hopelessness was found to change by 0.176 standard deviations. None of the other variables was significant (see Table 12).

Table 12

Simultaneous Multiple Regression with BHS as the Dependent Variable and BSES Subscales as Predictor Variables

	B	β	t	$Part^2$
Bicultural Beliefs	-.005	-.002	-.024	.000
Role Repertoire	.258	0.176	2.431**	.028
Knowledge	-.296	-.126	-1.153	.006
Positive Attitudes	-.198	-.082	-.76	.003
Communication	-.17	-.076	-.843	.003
Soc. Groundedness	-.197	-.089	-.854	.003

*= Significance at $p\leq.05$, **=Significance at $p\leq.01$, ***=Significance at $p\leq.00$

Similarly, we calculated another multiple regression to predict Anxiety based on BSES subscales as the predictor variables (see table 13). A significant regression equation was found ($F(6,191)=2.321$, $p<.05$), with an R^2 of .068. Communication (β =-

.294, *t*=-3.185, *p*=<.01) significantly contributed in the prediction of anxiety, as there was a negative correlation between Communication and anxiety. Thus, for every standard deviation change in Communication, there was a -.294 standard deviation change in anxiety. None of the other variables were significant (see table 13).

Table 13

Simultaneous Multiple Regression with BHS as the Dependent Variable and BSES Subscales as Predictor Variables

	B	β	t	$Part^2$
Bicultural Beliefs	0.053	0.084	.858	.004
Role Repertoire	.190	.047	.633	.002
Knowledge	-.327	-.05	-.451	.002
Positive Attitudes	.604	.091	.819	.003
Communication	-1.187	-.294	-3.185**	.05
Soc. Groundedness	.188	.031	.288	.000

*= Significance at $p \leq .05$, **=Significance at $p \leq .01$, ***=Significance at $p \leq .00$

In addition, we also calculated separate simultaneous linear regression models to predict both BHS and BAI with the BSES subscales, resilience, and stressful life events (Risk) entered into the regression equation as predictor variables. A significant regression equation was found ($F(8,189)=5.770$, $p<.001$), with an R^2 of .197 with BHS as the criterion variable (see table 14). Role Repertoire (β =0.154, *t*=2.235, *p*=<.05) significantly contributed to the prediction of hopelessness, as every standard deviation change in Role Repertoire was related to an increase in the level of hopelessness (β =0.154). Further, resilience, as measured by the self-reported endorsement of protective factors, also contributed to the prediction of hopelessness (β =-0.269, *t*=-3.579, *p*=<.001), such that for every standard deviation unit change in resilience, hopelessness decreased (β =-0.269). Finally, stress (risk) contributed to the prediction of

hopelessness (β =0.138, *t*=2.018, *p*=<.05), as every standard deviation unit change in stress predicted an (β =.138) increase in hopelessness.

Table 14

Simultaneous Multiple Regression with BHS as the Dependent Variable and BSES Subscales, Resilience, and Risk as Predictor Variables

	B	β	t	Part^2
Bicultural Beliefs	-0.061	-0.027	-0.296	0.000361
Role Repertoire	0.226	0.154	2.235*	0.021316
Knowledge	-0.245	-0.104	-1.001	0.004225
Positive Attitudes	-0.047	-0.019	-0.187	0.000144
Communication	-0.004	-0.002	-0.02	0.000001
Soc. Groundedness	-0.145	-0.066	-0.66	0.001849
Resilience	-0.078	-0.269	-3.579***	0.054289
Stress(Risk)	0.004	0.138	2.018*	0.017424

A significant regression equation was found ($F(8,189)=7.942$, $p<.001$), with an R^2 of .252 with BAI as the criterion variable (see table 15). The Communication subscale of the BSES (β =-0.197, *t*=-2.331, *p*=<.05) significantly contributed to the prediction of anxiety, as every one standard deviation change in the Communication subscale score was associated with a decrease in anxiety (β=-0.197). Furthermore, Resilience was also found to contribute to the prediction of anxiety (β =-0.236, *t*=-4.059, *p*=<.001), as each one standard deviation change in resilience was found to be related to a decrease in anxiety (β=-0.294). Stress (risk) contributed to the prediction of anxiety, being positively related to scores on the BAI (β =0.280, *t*=4.254, *p*=<.001).

In hypothesis 6, we predicted that Scores on the Stressful Life Events Inventory would have a negative relationship with scores on the BSES. This hypothesis was unsupported as weak, non-significant correlations were found between the subscales of the BSES and lifetime risk experienced (see table 2). Furthermore, we also investigated the relationship between levels of acculturation, as measured by the NPBI-III, and

cumulative negative life events (stress/risk). In all, the AICI and EACI subscales on the NPBI-III revealed non-significant correlations between the subscales of the NPBI-III scales (AICI and EACI) and lifetime risk experienced, AICI (*r*=.108, *p*>.05*)*, EACI (*r*=-.05, *p*>.05) (see table 2).

Table 15

Simultaneous Multiple Regression with BAI as the Dependent Variable and BSES Subscales, Resilience, and Risk as Predictor Variables

	B	β	t	$Part^2$
Bicultural Beliefs	0.293	0.047	0.527	0.001089
Role Repertoire	0.049	0.012	0.18	0.000121
Knowledge	-0.168	-0.026	-0.256	0.000256
Positive Attitudes	1.122	0.168	1.674	0.011025
Communication	-1.219	-0.197	-2.331*	0.021609
Soc. Groundedness	0.366	0.06	0.622	0.001521
Resilience	-0.236	-0.294	-4.059***	0.065025
Stress(Risk)	0.023	0.28	4.254***	0.071824

In hypothesis 7, we were interested in evaluating whether subscale scores on the BSES would be positively correlated with resilience scores. This hypothesis was supported, as significant positive correlations were found for five of the six subscales on the BSES with resilience: Bicultural Beliefs (r=.261, p<.01), Knowledge (r=.357, p<.01), Positive attitudes(r=.372, p<.01), Communication (r=.380, p<.01), Social Groundedness (r=.340, p<.01). Again, the correlation between Role Repertoire and resilience was not significant (see table 2).

A further analysis of Hypothesis 7 was conducted by using BSES subscales as the predictor variables and resilience scores as the dependent variable (see table 16). A significant regression equation was found ($F(6,191)=7.654$, $p<.001$), with an R^2 of .194.

In particular, Positive Attitudes (β =0.2, *t*=1.942, *p*=<.05) and Communication (β =.217, *t*=2.534, *p*=<.01) subscales on the BSES significantly contributed to the prediction of resilience, both being positively related to resilience, in that for every one standard deviation increase in both subscales were positively related to increases in resilience (β=.20 & β =.217, respectively).

Table 16

Simultaneous Multiple Regression with Resilience as the Dependent Variable and BSES Subscales as Predictor Variables

	B	β	t	$Part^2$
Bicultural Beliefs	-0.401	-0.051	-0.563	0.001369
Role Repertoire	-0.182	-0.036	-0.524	0.001156
Knowledge	0.632	0.078	0.752	0.002401
Positive Attitudes	1.658	0.2	1.942*	0.015876
Communication	1.675	0.217	2.534**	0.027225
Soc. Groundedness	0.57	0.075	0.754	0.002401

*= Significance at $p \leq .05$, **=Significance at $p \leq .01$, ***=Significance at $p \leq .00$

Finally, our eighth hypothesis that residence (i.e., on or off reservation) would predict levels of hopelessness within the sample was unsupported. Hopelessness scores of participants, by residence (on vs. off-reservation) were compared, and no significant main effects were found was found (F(1,196)=.634, p>.05) (see table 17).

Table 17

Means and Standard Deviations of a One-Way (Residence) ANOVA with BHS as Dependent Variable

Raw scores	Reservation n=14	Off-Reservation n=53
BHS		
Mean	19.43	18.43
SD	(6.81)	(6.45)

CHAPTER IV

DISCUSSION

The goal of the present investigation was to explore the relationships between cultural identity and markers of adaptive functioning within American Indian communities, and more specifically, those communities within the Northern Plains region. As such, the objectives, consistent with empirical frameworks proposed within the resilience literature, were developed not only to address the relationships between "healthy" psychological functioning and cultural identity, but also to investigate the impact that adversity has within the lives of Indigenous peoples from the Northern Plains region. Essentially, the aim was to uncover strengths relative to the function of culture, as it operates today within American Indian communities.

First, the results of the present study provide evidence of the protective effect of factors believed to buffer individuals from the impact of negative life events (e.g., self-efficacy, social support, etc.). Accordingly, there was a negative relationship between resilience and psychopathology (i.e., anxiety, hopelessness). Such findings also provide support for the extant literature in the area of resilience and developmental psychopathology, in that we can reasonably expect protective mechanisms (i.e., community resources, good parenting, self-regulation skills, self-efficacy, cohesive cultural identity, faith, optimism, etc.) to provide aid, and in fact be beneficial at the individual level, in the promotion of healthy and adaptive developmental trajectories (Masten, 2011; Masten, Cutuli, Herbers, and Reed, 2009).

Most importantly, further exploration of the relationship between resilience and psychopathology confirmed the presence of resilience as a moderating variable, essentially acting to mitigate the impact of stress (risk) on the degree of hopelessness within this sample of Northern Plains American Indians. Thus, protective factors can be said to defend against the harmful effects of adverse experiences across the lifespan, in promoting healthy psychological adaptation. Interestingly, the ability for resilience and the endorsement of protective factors to moderate the relationship between negative life events and hopelessness was only found to occur at medium and high levels of resilience. Such a relationship indicates that at low levels of resilience the impact of negative life events progress in an unadulterated fashion in their contribution in predicting feelings of hopelessness within the sample. Namely, the protective factors tapped by the construct of *resilience* within this study include: Ability to adapt to change, self-efficacy, close and secure relationships, faith, confidence, acknowledgement of past success, sense of humor, personal and collective goals and goal-setting, action oriented approach to life circumstances, patients, ability to tolerate negative affect, optimism, commitment, viewing obstacles or life stresses as challenges and opportunities, and ability to engage the support of others (Connor and Davidson, 2003). Such findings are critical within American Indian communities especially, as the rate of suicide is invariably high when compared to other communities, occurring most frequently in American Indian adolescent males, and often under the influence of alcohol or dugs, thereby increasing the impulsive nature of such acts.

Similarly, resilience significantly contributed to the prediction of anxiety, which may relate to the construct of resilience being negatively related to psychopathology,

and in fact increasing with treatment of Post-Traumatic Stress Disorder and associated symptomology, including prominent symptoms of anxiety (Connor, 2006). Thus, with respect to this study sample, resilience score increases predict resultant decreases in Anxiety. Although there was not a moderating effect of resilience found to impact the relationship between negative life events and anxiety, we can be relatively certain that resilience, as measured by the CD-RISC, and therefore the protective factors inherent within this measure, increase in their contribution to positive adaption with treatment (Connor, 2006). As such, treatment approaches would be wise to capitalize on identifiable protective factors that are already in place to "shoulder the burden" and provide an adjunctive and natural treatment to act alongside other efficacious treatment modalities.

It follows then that protective factors within American Indian communities, especially related to the prevention of suicide, often revolve around cultural engagement and cultural continuity at the community level (Alcantra and Gone, 2007; LaFromboise, Albright, and Harris, 2010; Whitbeck, et al. 2001; Chandler and Lalonde, 2008). Thus, those protective factors within the resilience construct that may be associated with cultural continuity and the like include: faith, secure relationships, as well as personal and collective goal setting. As a body of research, literature in the area of resilience has largely neglected the inclusion of culture, which undermines the capacity for policy change, intervention development, and prevention in communities of color, especially those that identify as collectivistic, particularly American Indian communities (Masten, 2011; Waller, 2002).

In contrast, adversity or self-reported risk experienced was positively correlated with hopelessness and anxiety. In particular, cumulative risk experienced or cumulative negative life events experienced across multiple sociodemographic domains have been found to impede psychological functioning (Rutter, 1979; Sameroff, Morrison Gutman, and Peck, 2003). Such a finding indicates that adversity, or risk, functions similarly across racial groups by disrupting adaptive psychosocial development (Masten, 2001; Masten, Cutuli, Herbers, and Reed, 2009).

Within the American Indian population, the function of adversity, though represented in contemporary circumstances, must be absorbed and accounted for through an understanding of the implications of the troubled relationship and history with the United States and associated federal policies outlined earlier. Accordingly, we begin to understand how poverty endemic to these communities, as well as the difficulties identified within this study sample in particular may be directly related to such events, differentiating this study sample, and American Indian people in general, from that of other racial groups within the United States.

In addition, following from one of the major goals of the investigation we sought to examine the protective capacities of cultural identity and associated characteristics believed to be inherent within such constructs. In particular, we were interested in whether properties of biculturalism served to benefit this sample of Northern Plains American Indians. First, however, we examined the concurrent validity between the two measures of cultural identification. As predicted, the two scales measuring bicultural identification, (i.e., BSES, NPBI-III), were positively correlated, though not all relationships were in predicted directions. Within the NBPI-III the scale

measuring European American, or dominant cultural identification was correlated with the scale measuring American Indian cultural identification. In light of this finding, we can only refer to the heterogeneity of this sample, as well as the sociocultural demographics of the dominant tribes within the sample. For example, what cultural characteristics of that particular tribe influenced such a relationship? Clearly, from the experience of being exposed to elements of dominant culture (i.e., taxation, capitalism, multimedia, social networking) one would expect that a degree of acculturation would influence one's beliefs, values, and worldview. That being said, a correlation between scales measuring degree of acculturation and enculturation may fit with the contemporary struggle of Indigenous peoples, in that there persists to be an acculturation pressure by way of establishing residence within the United States. Furthermore, subscales that make up the NPBI-III and BSES were also correlated, supporting past findings in the validation of the BSES (David, Okazaki, and Saw, 2009). However, two scales on the BSES, namely Bicultural Beliefs and Role Repertoire, were not correlated with the AICI. Though it is difficult to understand how this relationship remained undeveloped according to statistical standards, we can reasonably expect that the tendency for an individual to feel competent in multiple cultural milieus is quite separate from maintaining a more traditional and monocultural lifestyle, and in fact, the Bicultural Beliefs subscale of the BSES was positively correlated with the European American Cultural Identity subscale of the NPBI-III. With respect to the Role Repertoire, perhaps those individuals who identified as enculturated, or endorsed elevated scores on the AICI were less likely to hold positions in "mainstream" America, or dominant culture. Results indicated that the Role Repertoire

subscale of the BSES did not correlate with either the AICI or EACI, which may have been a function of the fact that the scale only taps into an individual's perceived functioning in multiple cultural environments, rather than one culture in isolation.

Next, we were interested in whether those individuals that identified as bicultural, traditional (enculturated), or acculturated as assessed by the NPBI-III would endorse less psychopathology than those that identify as marginal. Results contradicted findings from LaFromboise and colleagues, (2010), in that, cultural identification was not related to levels of hopelessness or anxiety. Such findings may have been a function of the use of different scales to measure cultural identity.

Subsequent findings provided support for previous research by David and colleagues (2009) in a multi-study validation of the BSES, wherein the subscales within the construct were generally negatively correlated with measures of psychopathology. Furthermore, a simultaneous multiple regression resulted in the finding that the Role Repertoire subscale of the BSES functioned as the sole contributor to the prediction of hopelessness, being positively related to levels of hopelessness. Recall that the subscale Role Repertoire within the BSES measures an individual's perceived ability to hold or maintain an important role within the multiple cultural contexts. Perhaps within this sample of American Indians, the idea of holding a role and contributing to two separate cultures may provide less "resources" to provide for other perceivably more important areas of their lives, such as family, or community. Taking into account the context with which this data was collected, perhaps holding responsibilities at the university or at a college may be perceived as less than hopeful. Coupled with the contemporary circumstances on some American Indian communities represented within this sample,

this finding than becomes more understandable due to the hardships faced within their home communities. It begs the question(s), what will this education (community position) do for me now, or in the future? How will this education (community role) benefit my family? Of course, the answers to such questions are as complex as each individual, from each individual tribe, which is a glaring limitation in this study, and likely most quantitative studies with indigenous populations as a whole.

Similarly, the Communication subscale of the BSES proved to be a significant contributor to the prediction of Anxiety, being negatively correlated with Anxiety. In other words, results indicated that the ability to communicate within a bicultural environment is related to personal feelings of efficacy. Relatedly, Hallett, Chandler, and Lalonde, (2007) found that language use, as a marker of cultural continuity, was related to a decrease in suicidal ideation, and a strong predictor of health and well-being within Canadian Aboriginal communities. Consequently, we can see that the benefit of communication will function to help overcome a legacy of colonization, predicated upon policies that disallowed many Indigenous peoples from speaking their traditional languages and practicing their tribal customs. Furthermore, such a revival to original languages will also allow for people to "think" and process according to their traditional systems of thought, rooted in their customs, beliefs, and traditional ceremonies. In contrast, we see that a perceived inability to communicate within one or more cultures involved heightened anxiety, whether it is within a mainstream or dominant cultural system/institution or within their traditional community. As such, one possible explanation for this finding may be related to perceived discrimination or a

number of predominant stereotypes related to how American Indians are perceived within dominant culture.

Additionally, we predicted that the BSES would be correlated with negative life events, due in part to the fact that the BSES was related to self-efficacy and the hypothesis that cumulative stress and negative life experiences may function to impede psychosocial development. Though the results were not significant, as neither the BSES nor the NPBI-III were correlated with Negative life events, or risk, it lends support for the construct validity, as both were intended to measure cultural identification. With respect to the finding that the BSES was not negatively correlated with cumulative negative life events, this may reflect that cultural identity development functions independent of the experience of negative life events.

We were also interested in whether bicultural self-efficacy would be related to scores on the resilience measure. Interestingly, five of six subscales were correlated with the resilience measure, with the exception being the Role Repertoire subscale. Following from the implications of communication on the BSES from above, we also found that the Communication subscale and the Positive Attitudes subscales significantly contributed to the prediction of resilience, in that both were positively related to the construct. Thus, we see that having a positive attitude regarding, both dominant culture and one's culture of origin is an important contributor to life trajectories that are driven by the identification of support from protective factors identified in the literature as related to healthy psychological adjustment and adaptive life circumstances. This again, lends support to the idea that communication, as well as Positive Attitudes related to ethnic group membership, or "ethnic affirmation", function

to act in a protective capacity for American Indians within this sample. According the Neblett, Rivas-Drake, Umaña-Taylor (2012), positive feelings and meaning that youth ascribe to their race and ethnicity promotes identity exploration, self-esteem, and are negatively associated with externalizing and internalizing behaviors. With respect to American Indians in particular, a positive attitude toward their ethnic heritage has been found to promote adaptive outcomes (Kulis, Napoli, & Marsiglia, 2002; as cited in Neblett, Rivas-Drake, Umaña-Taylor, 2012). In particular, high levels of ethnic affirmation have also been found to protect youth from the negative impact of perceived discrimination and associated impact on poor academic achievement and problem behaviors (Neblett, Rivas-Drake, Umaña-Taylor, 2012).

Lastly, we wanted to investigate whether our findings were consistent with previous findings by LaFromboise, Albright , and Harris (2010), that residence (i.e., on vs. off reservation) would be related and perhaps even predict levels of hopelessness within this study sample. The findings within the present investigation, with respect to levels of hopelessness according to residence, were non-significant, indicating that residence on the reservation or off-reservation was not related to and did not influence levels of hopelessness within this study sample. Such findings may have been related to the differences in measurement of cultural identity or perhaps the measurement of "current" residence on the reservation. The present investigation and analysis of this particular hypothesis utilized a question asking whether they lived on an American Indian reservation for the majority of their life, which may have not reflect current residence.

In all, the present investigation, as with all studies with American Indians, is limited in its ability to generalize across tribal and regional populations. Without mentioning the identity of the tribes represented in this study, suffice it to say that the sample was representative of only those tribes in the Northern Plains of the United States, with some participants coming from tribes in Southwestern States, or even from tribes in Northeastern United States. As a consequence, the number of tribes, and even tribal communities represented within the sample may have had an impact on the results, as people representing similar tribes from different communities are influenced by separate cultures effectually separating those communities. For example, one of the most populous tribes in the contiguous United States, with reservations in the northern plains and Great Lakes regions, display very striking cultural variations from community to community, despite sharing similar belief systems, language, and ceremonies. Many of these cultural variations can often be linked to the impact of colonization, or even directly to changes induced as a result of federal policies.

With respect to the experimental design and participant pool, data collection at a Wacipi may have confounded the results by influencing the participant responses. Such a "convenience" sample may be limited in its ability to generalize to American Indian community members on the reserves or out in other, urban or rural communities. However, this sampling method also provided a means for gathering participant responses during an event where American Indians were more populous than the University community.

Another limitation is that we did not include a measure of depression, specifically the CES-D. LaFromboise, Albright, Harris (2010) assert that issues may

exist with the structural integrity of the CES-D, in that it may not accurately capture the presence of depression in American Indian communities. Furthermore, Chorpita and Barlow (1998) indicate that hopelessness, or a complete loss of self-efficacy, predominates the clinical picture, effectively functioning as a precursor or risk factor to depression. Additionally, historical trauma and related sequelae have also been associated with the loss of hope within many Indigenous communities (Duran and Duran, 1995). Thus, positioning the present investigation to identify a specific risk factor within the American Indian sample was of primary interest. In short, the aim of the present study was not to diagnose, or intervene in the case of a positive screening of depression. The aim was only to link cultural identity to a direct measure of hope, in that one can assume the BHS is bidirectional, in that very low scores indicate hopefulness. Though, the decision not to include the CES-D was also due to consideration of participant time, as well as data collection effort involved.

With regard to the nature of the study, and likely the most debilitating limitation was the inability to truly represent Indigenous thought and ways of knowing within the instruments utilized within the investigation, especially related to concepts of resilience, anxiety, and hope. Owing to the finding regarding communication in its relationship with resilience and hope, American Indian and other Indigenous communities would benefit from the construction of instruments that more accurately represent their true worldviews, feelings, and beliefs. Though such an ideal operates from a culturally embedded framework of strengths within a cultural context, there is also impetus to develop culture-free strengths that cut across such sociocultural boundaries (Pedrotti, Edwards, and Lopez, 2009). However, constructs such as

resilience, negative life events (risk), and anxiety must also be respected, in that there may be functional differences for each individual, and certainly between American Indian cultures as much as stories of resilience and the collective "Struggle" of each tribe were different during periods of history. Ultimately, despite being relegated to relatively small parcels of land, that were again divided in order to fracture land claims within American Indian communities, the cultures and belief systems of American Indian peoples have withstood the test of time, a striking testimony to the nature of resilience within these communities.

Lastly, measuring negative life events is also a dilemma, particularly within American Indian communities, due to the pervasive and destructive consequences of historical events that have compromised these communities in most facets of human experience and functioning. Again, we can presume that a measure of concrete negative life events does not function similarly across cultures, or even individually. In spite of the limitations of the present investigation, the work herein provides a broad brushstroke in an attempt to illustrate the function of culture and identity in predicting resilient adaptation despite adverse experience.

To conclude, the present investigation provides important implications on the nature of resilience and related protective factors within Indigenous communities. Especially as protective factors were found to mitigate psychopathology within Northern Plains American Indian communities. Most importantly, however, with respect to policy and intervention and prevention initiatives are the findings that communication ability (i.e., language acquisition) and holding positive attitudes toward

one's traditional and mainstream culture act are protective against anxiety and the deleterious psychophysiological consequences of anxiety.

Furthermore, communication ability also proved to be negatively associated with hopelessness, which illustrates the importance and specificity with which communication operates within Indigenous communities. Communication ability or language facilitation, then, may function as a developmental task (i.e., age-related behavioral standard) in youth within Northern Plains American Indian communities, which would support multiple areas of strength for these communities, namely bringing the language back to the communities, and providing a preventative public health measure. Relatedly, cultural discontinuity has been proposed as a mediating variable in pathways to psychopathology, which then lends support for any attempt at cultural revitalization as a progressive stride toward the transformation of individual and collective identity (Alcántra and Gone, 2007; Chandler and Lalonde, 2008).

Coincidentally, the presence of protective factors reinforces the importance of prevention in the face of such negative mental health indices as hopelessness from a transactional-ecological framework, which focuses on intervention at the point of interaction of individual and the context/environment in attempts to reinstate normative developmental trajectories (Gone and Alcántra, 2007). Therefore, an effective intervention would curb impulsive high-risk behavior by identifying and intervening on the antecedent negative life events in promoting positive, healthy adaptive circumstances for the individual at risk, effectively functioning to nurture protective factors within an individual's environment (i.e., spirituality, cultural engagement, language revitalization, pride in culture/"ethnic affirmation").

Additionally, resilience was also found to moderate the relationship between stress and hopelessness with this sample, indicating that intervention efforts may do well, and perhaps even prevent such public health concerns as suicide and substance abuse/dependence by promoting culturally mediated protective factors within these communities. Hopefully, in time, community level interventions will move from disease-based medical models toward promoting those factors known to support healthy and adaptive biopsychosocial and spiritual wellness.

According to Masten, et al., (2009) *Resilience* refers to "patterns of positive adaptation during or following significant adversity or risk"(p.118), therefore, we can begin to glean from the totality of the American Indian experience, that resilience at the individual level, is a microcosm of the history of the entire population of peoples Indigenous to North America with respect to the embattled history of colonial imperialism. Thus, resilience within many American Indian communities may function in a similar fashion; in that community level protective factors are as prevalent and reinforcing as those inherent at the individual level (e.g., tribal healthcare programs, public health programs, traditional foods programs/gardens, language revitalization programs, ceremonial gatherings, youth after school programming, etc.).

As an exploration into the nature of resilience in Indigenous communities, utilizing a quantitative approach, this investigation has been able to only examine the nature of healing and optimism from a distance, using tools that are substandard at best. In support of efforts to decolonize and empower these communities, future research would do well to focus on what resilience is, how it functions, and its foundational characteristics, from the very people that live within the communities themselves. To

provide context, I offer an inspirational insight about the family history of survival during the thick of attempts at colonization, specifically the era of catholic boarding schools on my home reservation, within one Northern Plains American Indian community, as told by my grandmother. When discussing her father she mentioned, "the proudest memory I have [of my father], was when he resisted the Catholic Church and did not send us to boarding school" (personal communication, September, 2013). To this day she proudly carries his Indian name as hers. Thus, we can begin to understand that resilience is not subjective or individually based within these communities, it is a relationship we have with our ancestors, the land, our families, and our communities. Often, they are stories of resistance, due to the calamitous history between the Indigenous people of North America and the dominant culture, a relationship marred by the yet chronic effects of imperialism. Often, these are stories of passion and compassion of individuals who were able to thrive despite hardship. Through it all, they are most always stories of healing from the very institutions that forced people to live in a matter foreign to them, against their will (Kirmayer, 2011).

In efforts to remedy the epistemic divergence between Indigenous and scientific ways of knowing, Gone (2012) provides a context for *Indigenous Traditional Knowledge* (ITK), where personal experience is collectively analyzed, and realized by consensus; rather than traditional western scientific methods of indirect critique by contradiction and argument, revised by second-hand theoretical advances. Thus, allowing Indigenous epistemology to drive social, scientific, and political initiatives would provide a necessary catalyst in efforts toward decolonization and resilience within American Indian communities. To that end, future research in the area of

cultural identity and resilience within American Indian communities would benefit the existing literature base by utilizing a mixed methods approach, augmenting assessment of strengths while also promoting participatory action in community level studies in efforts to disseminate their own tribal narratives of perseverance, survival, and motivation toward resilient adaptation.

Lastly, moving from merely identifying that ethnic and cultural identification are protective, to developing a framework by which critical periods are identified in the socio-emotional development of children and adolescents, especially related to areas impacted by historical trauma is an important area for research to explore. In effect, this would involve connecting the protective benefits of cultural identification to developmental processes and measures of outcome within American Indian populations, while accounting for risk experienced via intergenerational transmission of traumatic life events. Further, expanding on those protective factors specific to American Indian populations that operate across cultures may prove to inform interested communities and organizations as to what aspects of developmental trajectories influence adaptive functioning.

APPENDICES

APPENDIX A

PARTICIPANT CONSENT FORM

UNIVERSITY OF NORTH DAKOTA
CONSENT TO PARTICIPATE IN RESEARCH STUDY
Title of Study: Cultural Hybridization: Bicultural Self-Efficacy And Resilience in Northern Plains American Indians
Principle Investigator(s): Kyle Hill (701) 330-9462

Thomas Petros, Ph. D. (701) 777-3260

Purpose

The purpose of this study is to examine resilience in American Indians. Specifically, we want to examine the relationships between past experiences, cultural identity, and current status in college students and community members in attendance and residing within the community at the University of North Dakota, and Turtle Mountain Community College.

Duration of present study

Participation in this study will take approximately 1-1.5 hours.

Subjects

You have been selected to participate in this study because you are an American Indian college student attending school at the University of North Dakota or Turtle Mountain Community College, or a community member attending a related event. During your participation in this study you will be asked to complete 7 questionnaires. Some questionnaires measure different characteristics of your mental health and well-being. Other questionnaires measure cultural identification and/or general past life experiences.

Procedures

Participation in this study is confidential. Your name will only be on this form; all other forms will be coded with a number. All names and identification numbers will be stored separately in a locked cabinet that only the principal investigators have access to. You will be given a packet of questionnaires Connor-Davidson Resilience Scale (CD-RISC), Stressful Events Inventory, Bicultural Self Efficacy Scale (BSES), Northern Plains Biculturalism Inventory – Third Edition (NPBI-III), Beck Anxiety Inventory (BAI), Beck Hopelessness Scale (BHS), and Demographic questionnaire) to fill out, and once the questionnaires are completed you will be given compensation for

your time. You will also be required, as part of your voluntary participation, to provide a copy of your unofficial transcript (with all identifying information (i.e. name, date of birth, identification number, social-security number) blacked out/deleted from unofficial transcript) for proof of credits completed and grade point average. You will be given an opportunity, upon your written consent of participation, to print your unofficial transcript in the computer lab on the second floor of Corwin-Larimore hall or at a facility with computer access at your institution. If you decide to stop before all questionnaires are complete you will be compensated based on your time of participation.

Risks

There are few potential risks in this study. You will be asked personal questions that may be uncomfortable to answer. Some questions also pertain to possible traumatic experiences that may make you uncomfortable. If for any reason you want to discontinue participation in the experiment, you are encouraged to inform the experimenter and you are free to discontinue at any time without penalty. Contact information for mental health services will be provided to you in case of any effects of participation.

Compensation/cost

You will receive $20 or 2.5 hours of research participation credit for use in a psychology class as compensation for your participation.

Confidentiality

Information gathered from the questionnaires will be coded with an identification number and your name on this form will be kept separate from the data. All materials gathered during this study will be kept in a locked file cabinet in the Indians Into Psychology Doctoral Education (INPSYDE) office in the Northern Plains Behavioral Research building, or at the UND School of Medicine and Health Sciences in the Native Research Team Laboratory. The Native Research Team may transport coded data to the University of North Dakota School of Medicine and Health Sciences for data entry and data analysis. The Native Research Team will not have access to the consent forms, ONLY coded materials (i.e., the surveys that you fill out). The Project Investigator and trained research assistant at each site will be responsible for overseeing the data Information will be kept for 3 years. The data collected at your site (Turtle Mountain Community College) will be provided to the Turtle Mountain Tribal College. The study experimenters and people who audit IRB procedures will have access to the data during this 3-year period. There will be no further research analysis on the data without your consent, and participation. You will not be personally identified in any reports or publications that may result from this study.

Right to Refuse or Withdraw

Refusal to participate or withdrawal from the study will not result in loss of benefits or relationship with the designated site of data collection or the University of

North Dakota. If you decide to withdraw from this study, please tell the experimenter. If the study design is to be changed you will be informed and your consent re-obtained.

Questions

If you have any questions during and/or after participation in this study, feel free to ask the experimenter. If you have questions regarding the project design contact Kyle Hill (PI), Dr. Thomas Petros (Advisor), or Melissa Wheeler at the UND psychology department. You can reach Dr. Thomas Petros at (701) 777-3260, Kyle Hill at (701) 330-9462, or Melissa Wheeler at (505) 948-8070 should you have any concerns or questions. If you have further questions or comments on this study you can also contact the Office of Research Development and Compliance at (701) 777-4279.

You may report (anonymously, if you choose) any complaints or comments regarding the manner in which this study is being conducted to the University of North Dakota Social Behavioral Institutional Review Board at (701) 777-4279, or by addressing a letter to the IRB at UND, P.O. Box 7134, Grand Forks, ND 58202-7134.

MY SIGNATURE BELOW INDICATES THAT I HAVE DECIDED TO VOLUNTEER AS A RESEARCH SUBJECT AND THAT I HAVE READ, UNDERSTAND AND RECEIVED A COPY OF THIS CONSENT FORM.

_____ _____

Date Signature of Participant

MY SIGNATURE BELOW INDICATES THAT I (EXPERIMENTER) HAVE EXPLAINED THE PROCEDURES, RISKS AND BENEFITS OF THIS STUDY TO THE PARTICIPANT.

_____ _____

Date Signature of Investigator

APPENDIX B

DEMOGRAPHIC INFORMATION

1. Sex: ☐ Male ☐ Female 2. Age: _____ years

2. Ethnicity (Race): ☐ Caucasian ☐ Native American/Alaskan Native
Other:_____

3. Marital Status: ☐ Single ☐ Married ☐ Separated
☐ Divorced ☐ Widowed ☐ Other

4. Employment: ☐ Employed, Full-Time ☐ Employed, Part-Time
☐Homemaker ☐ Currently Unemployed ☐ Student ☐ Volunteer
☐ Retired

5. Education: (Highest Level Completed):
☐ High School or GED ☐ Technical School ☐ Some College
☐ Associate Degree ☐ Bachelor's Degree ☐
Graduate/Professional

6. Tribal Affiliation: _____ State:_____

7. Did you grow up on a Native American Indian reservation for most of your life?

☐ Yes ☐ No

8. What was your household Income growing up (estimate)?
☐<$8,000/year ☐$12,000-20,000/yr ☐$30,000-$40,000/yr ☐$50,000-75,000/yr ☐$8,000-12,000/yr ☐$20,000-30,000/yr ☐$40,000-50,000/yr ☐>$75,000/year

9. Did your parent(s) or guardian(s) have a job when you were growing up?

☐ Yes ☐ No

If yes, what was their job?

_____

10. Have you lived with (> 1 year) different parent or guardian(s) other than your biological parent (e.g. mother or father)? Or have you switched homes (>1 year) to live someone other than your primary caretaker during your life?

☐ Yes ☐ No

If yes, whom did you live with?

_____

11. Did somebody else raise you, or help raise you, other than your mother or father?

If yes, who was it?

_____

12. Do you participate in the Native American Church? ☐ Yes ☐ No

If yes, how often?

_____

13. Do you participate in other traditional Native American practices and ceremonies?

☐ Yes ☐ No

Do you practice any religion?

☐ Yes ☐ No

HEALTH INFORMATION

14. Please indicate whether you suffer from any of the following chronic diseases or illnesses (Check all that apply).

☐ Allergy ☐ Alcohol Abuse ☐ Anxiety ☐ Arthritis ☐ Asthma
☐ Cancer ☐ Depression ☐ Diabetes ☐ Drug Abuse ☐ Epilepsy
☐ Gout ☐ Heart Attack ☐ Hypertension ☐ Glaucoma ☐ Kidney Disease ☐ Migraine ☐ PTSD ☐ Schizophrenia ☐ Stroke
☐ Tuberculosis

When were you diagnosed with the disease or illness?

_____

16. Do you regularly take any prescription or over-the-counter medications?

☐No ☐Yes If yes, what? _____

17. A. On an average weekday, how many hours do you watch TV?
☐ I do not watch TV in an average weekday. ☐ 1 hour/day ☐ 2 hours/day☐ 3 hours/day ☐ 4 hours/day ☐ 5 or more hours/day

B. On an average day, how many hours do you play video games?
☐ I do not play video games in an average weekday. ☐ 1 hour/day ☐ 2 hours/day☐ 3 hours/day ☐ 4 hours/day ☐ 5 or more hours/day

18. Please answer the following questions on your use of substances.

A. Do you smoke cigarettes or chew tobacco?

☐No ☐Yes

B. Do you currently drink alcohol?
☐No ☐Yes

C. Do you use any other illicit substances (e.g., marijuana, cocaine, heroin, illicit use of prescription medication, etc.)
☐No ☐Yes

APPENDIX C

THE BICULTURAL SELF-EFFICACY SCALE (BSES)

The BSES

INSTRUCTIONS:

Please answer each statement as carefully as possible. Please circle ONE of the numbers to the right of each statement to indicate your degree of agreement or disagreement.

1. I can count on both mainstream Americans and people from the same heritage culture as myself.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
2. I can communicate my ideas effectively to both mainstream Americans and the same heritage culture as myself.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
3. I have generally positive feelings about both my heritage culture and mainstream American culture.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
4. I am knowledgeable about the history of both mainstream America and my cultural group.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9

5. I can develop new relationships with both mainstream Americans as well as people from the same heritage culture as myself.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
6. It is acceptable for an individual from my heritage culture to participate in two different cultures.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
7. I can communicate my feelings effectively to both mainstream Americans and people from the same heritage culture as myself.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
8. I am knowledgeable about the values important to mainstream American as well as to my cultural group.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
9. I feel comfortable attending a gathering of mostly mainstream Americans as well as a gathering of mostly people from the same heritage culture as myself.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
10. An individual can alter his or her behavior to fit a particular social context.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
11. I have a generally positive attitude toward both mainstream Americans and my cultural group.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9

12. It is acceptable for a mainstream American individual to participate in two different cultures.	Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree Disagree Neutral Agree
13. I have strong ties with mainstream Americans as well as people from the same heritage culture as myself.	Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree Disagree Neutral Agree
14. I am proficient in both standard English and the language of my heritage culture (e.g., urban street talk, Spanish, etc.).	Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree Disagree Neutral Agree
15. I can choose the degree and manner by which I affiliate with each culture.	Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree Disagree Neutral Agree
16. I am knowledgeable about the gender roles and expectations of both mainstream Americans and my cultural group.	Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree Disagree Neutral Agree
17. I feel at ease around both mainstream Americans and people from the same heritage culture as myself.	Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree Disagree Neutral Agree
18. I have respect for both mainstream American culture and my heritage culture.	Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree Disagree Neutral Agree
19. Being bicultural does not mean I have to compromise my sense of cultural identity.	Strongly Disagree 1 2 3 4 5 6 7 8 9 Strongly Agree Disagree Neutral Agree

20. I can switch easily between standard English and the language of my heritage culture.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
21. I have an extensive network of mainstream Americans as well as an extensive network of people from the same heritage culture as myself.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9 Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
22. I take pride in both the mainstream American culture and my heritage culture.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
23. I am confident that I can learn new aspects of both the mainstream American culture and my heritage culture.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
24. It is possible for an individual to have a sense of belonging in two cultures without compromising his or her sense of cultural identity.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
25. I am knowledgeable about the holidays celebrated both by mainstream Americans and by my cultural group.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9
26. I feel like I fit in when I am with mainstream Americans as well as people from the same heritage culture as myself.	Strongly Disagree 1 2 Disagree 3 4 Neutral 5 6 Agree 7 8 Strongly Agree 9

APPENDIX D

STRESSFUL LIFE EVENTS QUESTIONNAIRE

Instructions

The following questionnaire is a representation of life events. For each life event that you have experienced, from birth to your present age, write a number in the blank, from 0-7, indicating how you felt about the event. With 0 indicating that you did not experience the event, and 1-7 expressing how strong of a stressful impact (i.e. distressing) the event had on your feelings or well-being. With 1-2 indicating that the event had a minimal stressful effect on you (joyful events), 3-4 indicating that the event had a moderately stressful effect on you, 5-6 indicating that the event had a significant stressful impact on your feelings or well-being, and 7 indicating that the event had an extremely stressful effect on your feelings and well-being. Scores may indicate the impact of the event on your feelings and/or well-being at the time you experienced it or since the time you have experienced the event. For example, if an event caused you a moderate amount of stress at the time you experienced it but no longer has a stressful impact on you a 3 would be an appropriate answer. On the other hand, if an event caused you no stress or minimal stress at the time when you experienced it, but now causes you a moderate degree of stress a 3 would be an appropriate answer. Finally, if an event caused you a moderate degree of distress at the time of the event, and continues to cause you a moderate degree of stress a 3 would be an appropriate answer. If you have any questions, ask the researcher for assistance. Your responses are confidential.

Have you experienced the following:

1. _____ Started school or a training program after not going to school for a long time.
2. _____ Changed schools or training programs
3. _____ Graduated from school or training program.
4. _____ Had problems in school or training program.
5. _____ Failed school or training program.
6. _____ Did not graduate from school or training program.
7. _____ Started work for the first time.
8. _____ Returned to work after not working for a long time.
9. _____ Changed jobs
10. _____ Had trouble with a boss.

11. _____ Conditions at work got worse, like getting demoted or having trouble with boss.
12. _____ Got laid off from work.
13. _____ Got fired.
14. _____ Took on a greatly increased workload.
15. _____ Suffered a business loss or failure.
16. _____ Stopped working for an extended period.
17. _____ Became engaged.
18. _____ Engagement was broken.
19. _____ Got married.
20. _____ Started a love affair.
21. _____ Relationship with significant other/spouse changed for the worse, without separation.
22. _____ Termination of love relationship.
23. _____ Reunited with significant other/spouse.
24. _____ Infidelity on behalf of spouse/significant other.
25. _____ Spouse/significant other (boyfriend or girlfriend) died
26. _____ Friend died
27. _____ Became pregnant.
28. _____ Gave birth to first, second, third, fourth child, etc.
29. _____ Had an abortion.
30. _____ Biological child died.
31. _____ Adopted a child.
32. _____ New person moved into the household.
33. _____ Person moved out of the household.
34. _____ Someone stayed in the household after they were expected to leave.
35. _____ Serious family argument other than with spouse.
36. _____ Family member other than spouse or child dies:
    a. _____ Mother
    b. _____ Father
    c. _____ Brother or sister
    d. _____ Grandparent
    e. _____ Other
37. _____ Moved to a different neighborhood.
38. _____ Lost a home through fire or other disaster.
39. _____ You were physically assaulted.
40. _____ You were robbed.
41. _____ Involved in a car accident where you or someone else was injured.
42. _____ Involved in a lawsuit.
43. _____ Accused of something for which a person could be sent to jail.
44. _____ You were arrested.
45. _____ You were sentenced to jail or prison.
46. _____ Got involved in a court case.
47. _____ Got convicted of a crime.
48. _____ Didn't get out of jail when expected.

49. _____ Foreclosure or default of mortgage or loan.
50. _____ Went on welfare.
51. _____ Got taken off welfare.
52. _____ Repossession of a car, furniture, or other items bought on an installment plan.
53. _____ Did not get an expected wage or salary increase.
54. _____ Your pet died.
55. _____ Had a close friend die.
56. _____ Entered the armed services, and been deployed.
57. _____ Witnessed combat related violence (e.g., roadside bomb (IED)).
58. _____ Had been hospitalized for a physical illness.
59. _____ Ever been diagnosed or seen for a mental disorder.
60. _____ Had problems and negative experiences due to alcohol and/drug use
61. _____ Legal problems due to events that occurred while using drugs/alcohol
62. _____ Ever had a serious physical injury.
63. _____ Unable to get treatment for an illness or injury.
64. _____ Serious, life-threatening illness or accident to:
    a. _____ Spouse
    b. _____ Child
    c. _____ Boyfriend/Girlfriend
    d. _____ Close friend
    e. _____ Close family member
    f. _____ Distant family member
65. _____ Ever been sexually assaulted or forced sexual contact (other than with marital, live-in or dating partner).
66. _____ Sexually assaulted or forced to make sexual contact with marital or dating partner.
67. _____ Physically assaulted or unwanted sexual contact (hitting, kicking, pushing, slapping, groping, fondling, rape, oral sex, anal sex, vaginal sex) by marital partner, dating, or live-in partner.
68. _____ Physically assaulted (abuse) from father, mother, or another family member growing up.
69. _____ Physically assaulted, being pushed, punched, or otherwise hurt by non-marital partner.
70. _____ Experienced a natural disaster (i.e. flood, hurricane, tornado, earthquake, tsunami), which then caused you a grief, stress, or loss.
71. _____ Growing up on a reservation for the majority of your life.
72. _____ Parents divorced.
73. _____ Raised by a single parent.
74. _____ There was a good deal of conflict between your parents/guardians as you were growing up.
75. _____ There was a good deal of conflict between a sibling and parents/ guardians as you were growing up.
76. _____ Witnessed domestic violence between your parents or siblings.
77. _____ Parents abuse(d) (Use in excess or too often) alcohol/drugs.

78. _____ Siblings abuse(d) (Use in access or too often) alcohol/drugs.
79. _____ Either one of your parents convicted of a crime.
80. _____ Mother suffers from any psychological problems.
81. _____ Spent time in foster care as a child.
82. _____ Incarcerated as a child or spend time at a detention center.
83. _____ Hospitalized as a child.
84. _____ Ever had poor grades in school (less than a 2.0 GPA or "C" average).
85. _____ Ever been diagnosed with any psychological disorders (i.e. ADHD, Major depressive disorder, bipolar disorder, generalized anxiety disorder, Obsessive compulsive disorder).
86. _____ Felt like you have had a problem with socialization or "fitting in" with your peers, or another group, which you have wanted acceptance/belonging from.
87. _____ Ever been neglected (i.e. left by yourself) as a result of frequent parent/guardian absence when growing up.
88. _____ Been repeatedly ridiculed or "put down" (emotionally abused) by a parent, family member, or romantic partner, which you shared a good amount of contact with.
89. _____ Present when another person was killed, seriously injured, sexually or physically assaulted.
90. _____ Raised by someone other than your parents when growing up.
91. _____ Family suffered a major change in financial status growing up, causing a great loss of income
92. _____ Grew up in an economically disadvantaged, poor, or "rough" neighborhood.
93. _____ Felt discriminated against, oppressed, or otherwise felt like the object of prejudice due to race, ethnicity, gender, disability, sexual orientation, or religion.
94. _____ Parent unemployment caused family to be "just getting by" every month, or having a hard time providing for family.
95. _____ Could not get needed medical attention due lack of or poor medical services due to inability to pay, lack of insurance, or inability to travel to hospital.
96. _____ Delinquent from school or "skipped" school multiple times.
97. _____ Do not know culture, traditional religion/spirituality, or "old ways" which ancestors practiced.

In all, how stressful has your life been for you thus far?

1	2	3	4	5	6	7
Minimal stressful		Mildly stressful	Moderate stress		Very stressful	Extreme stress

APPENDIX E

CONNOR DAVIDSON RESILIENCE SCALE (CD-RISC)

1. I am able to adapt to change
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
2. I have close ad secure relationships
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
3. I take pride in my achievements
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
4. I work to attain my goals
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
5. I feel in control of my life
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
6. I have a strong sense of purpose
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time

7. I see the humorous side of things
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
8. Things happen for a reason
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
9. I have to act on a hunch
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
10. I can handle unpleasant feelings
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
11. Sometimes fate or god can help
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
12. I can deal with whatever comes my way
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
13. Past success gives me confidence for new challenges
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time

14. Coping with stress strengthens me
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
15. I like challenges
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
16. I can make unpopular of difficult decisions
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
17. I think of myself as strong person
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
18. When things get hopeless, I don't give up
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
19. I give my best effort, no matter what
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
20. I can achieve my goals
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time

21. I am not easily discouraged by failure
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
22. I tend to bounce back after hardship or illness
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
23. I know where to turn for help
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
24. Under pressure, I focus and think clearly
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time
25. I prefer to take the lead in problem solving
    a. Not true at all
    b. Rarely True
    c. Sometimes true
    d. Often true
    e. Nearly true all the time

APPENDIX F

NORTHERN PLAINS BICULTURAL INVENTORY-III

NPBI-III (Northern Plains Biculturalism Inventory III)
(2011, McDonald, J.D, Baker, L., Gonzalez, J., Rose, W.)

These questions ask you to describe your attitudes, feelings, and participation in Indian and White cultures. Items may apply completely, some, or not al all, so please read each question carefully and answer as accurately as you can. Then circle the number above the answer that best fits how you feel or what you do, as in the example below.

Example: What is your degree of comfort with paper and pencil questionnaires?

1. ___	2. ___	3.____	4. _X_
No comfort			Great comfort

In this example, the person felt moderate but not complete comfort with paper and pencil questionnaires, so filled in 4.

In the case of attitudes and feelings, your first impression is usually correct. We are interested in how much your daily thoughts, feelings and actions are influenced by Indian and White cultures., keeping in mind that no two people have the same background.

1. In general, how comfortable are you around White people?

1. ___	2. ___	3. ___	4. ___
No comfort			Complete comfort

2. How comfortable are you in encouraging your children to learn and practice American Indian ways?

1. ___	2. ___	3. ___	4. ___
No comfort			Complete comfort

3. How strongly do you identify with American Indian culture?

1. ___	2. ___	3. ___	4. ___
No Identification			Greatly Identify

4. How strongly do you identify with White culture?

1. ___	2. ___	3. ___	4. ___
No Identification			Greatly Identify

5. How often do you think in an American Indian language?

1. ___	2. ___	3. ___	4. ___
I rarely or never think in an Indian language			Very often or always think in an Indian language

6. How confident are you in White/Western (doctors in hospitals) medicine?

1. ___	2. ___	3. ___	4. ___
I do not use White medical doctors			Have complete faith in White medical doctors

7. How confident are you in traditional Native/American Indian medicine and ceremonies?

1. ___	2. ___	3. ___	4. ___
No confidence In Native medicine			Have very strong faith in Native medicine

8. How much is your way of thinking of "Family" American Indian (cousins same as brothers and sisters, aunts/uncles as parents, everyone is related)?

1. ___	2. ___	3. ___	4. ___
My idea of "Family" is mostly "White", relatives/friends are what they are			My idea of "Family" is very strongly Indian we are all relatives

9. How often do you attend traditional American Indian ceremonies (i.e Sweat lodge, Pipe Ceremonies, Sundance, Shaky Tent, Vision Quest)?

1. ___	2. ___	3. ___	4. ___
I never attend Indian ceremonies			I attend Indian ceremonies frequently

10. How often do you attend more White, Christian religious ceremonies (Christenings, Baptisms, Church services)?

1. ___	2. ___	3. ___	4. ___
I never attend Christian ceremonies			I attend Christian ceremonies frequently

11. How often do you participate in Indian dancing (Grass, Fancy, Jingle-Dress,Round, etc.)?

1. ___	2. ___	3. ___	4. ___
I never participate in Indian dances			I participate in Indian dances frequently

12. To how many social organizations do you belong where most of the members are Indian?

1. ___	2. ___	3. ___	4. ___
I belong to no Indian organizations			Most of the organizations I belong to are Indian organizations

13. How often do you attend White celebrations (i.e. White ethnic festivals, parades, etc)?

1. ___	2. ___	3. ___	4. ___
I never attend White celebrations			I attend White celebrations frequently

14. How often do you attend Indian celebrations (i.e. Pow-Wows, Wacipis, Hand-games)?

1. ___	2. ___	3. ___	4. ___
I never attend Indian celebrations			I attend Indian celebrations frequently

15. How many of your family speak an American Indian language?

1. ___	2. ___	3. ___	4. ___
None of my family speak Indian			Most of my family speak Indian

16. How much do you speak an American Indian language?

1. ___	2. ___	3. ___	4. ___
I rarely or never speak Indian			I often or always speak Indian

17. To what extent do members of your family have Indian first or last names (like "Wambli" or "Kills-in-Water")?

1. ___	2. ___	3. ___	4. ___
None have Indian last names			All have Indian last names

18. How often do you talk about White news and culture in your daily conversation?

1. ___	2. ___	3. ___	4. ___
I never engage in topics of conversation about Whites and their culture			I engage in topics of conversation about Whites and their culture frequently

19. How often do you talk about Indian topics, news and culture in your daily conversations?

1. ___	2. ___	3. ___	4. ___
I never discuss Indian news or cultural issues			I discuss Indian news or cultural issues daily

20. How much do you believe in any Indian Creation Stories (how Earth/People/Animals were made?)

1. ___	2. ___	3. ___	4. ___
I don't believe in any of those stories			I very strongly believe in those stories

21. How much do you believe in any non-Indian Creation Stories (Adam/Eve, Garden of Eden, etc?)

1. ___	2. ___	3. ___	4. ___
I don't believe In any of those stories			I very strongly believe in those stories

22. In general, much do you believe *"Success"* best means when an **individual** wins or achieves something?

1. ___	2. ___	3. ___	4. ___
I totally believe success is best achieved by individuals			I totally believe success is best achieved by groups (i.e.families teams, tribes, etc.)

23. In general, how much do you believe *"Success"* best means when a **Group** (i.e. families teams, tribes, etc.) wins or achieves something?

1. ___	2. ___	3. ___	4. ___
I totally believe success is best achieved by individuals			I totally believe success is best achieved by Groups

24. How often are you on, or been to, any American Indian reservations?

1. ___	2. ___	3. ___	4. ___
I call a reservation "home"			Never been to an Indian reservation

25. How important is your European or White American heritage and history to you?

1. ___	2. ___	3. ___	4. ___
Not at all Important			Very important

26. My AGE is_____

27. My highest education level achieved is (# of years): _____

28. My PRIMARY Cultural/Ethnic Identification is (circle one only)
    a. White/Caucasian ethnicity (ethnic group [i.e. "Swedish", "American" _____)
    b. American Indian/Alaska Native (tribe: _____)
    c. Asian (affiliation [i.e. "Chinese"_____)
    d. Latino/a (affiliation [i.e. "Mexican"__ _____)

APPENDIX G

BHS

This Questionnaire consists of 20 statements. Please read the statements carefully one by one. If the statement describes your attitude for the past week, including today, darken the circle with a 'T' indicating TRUE in the column next to the statement. If this statement does not describe your attitude, darken the circle with an 'F' indicating FALSE in the column next to this statement. Please be sure to read each statement carefully.

1. I look forward to the future with hope and optimism	T	F
2. I might as well give up because there is nothing I can do about making things better for myself.	T	F
3. When things are going badly I am helped by knowing that they cannot stay that way forever.	T	F
4. I can't imagine what my life would be like in 10 years.	T	F
5. I have enough time to accomplish things that I want to do.	T	F
6. In the future, I expect to succeed in what concerns me most	T	F
7. My future seems dark to me.	T	F
8. I happen to be particularly lucky, and I expect to get more of the good things in life than the average person.	T	F

9. I just can't get breaks, and there's no reason I will in the future	T	F
10. My past experiences have prepared me well for the future	T	F
11. All I can see ahead of me is unpleasantness rather than pleasantness	T	F
12. I don't expect to get what I really want.	T	F
13. When I look ahead to the future, I expect that I will be happier than I am now.	T	F
14. Things just won't work out the way I want them to.	T	F
15. I have great faith in my future.	T	F
16. I never get what I want, so it's foolish to want anything	T	F
17. It's very unlikely that I will get any real satisfaction in the future	T	F
18. The future seems vague and uncertain to me.	T	F
19. I can look forward to more good times than bad times.	T	F
20. There's no use in really trying to get anything I want because I probably won't get it.	T	F

APPENDIX H

BAI

Below is a list of common symptoms of Anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by each symptom during the past week, including today, by placing an X in the corresponding space in the column next to each symptom.

Item	Not at all	Mildly	Moderately	Severely
1.Numbness or tingling				
2. Feeling hot				
3. Wobbliness in legs				
4. Unable to relax				
5. Fear of the worst happening				
6. Dizzy or light headed				
7. Heart pounding or racing				
8. Unsteady				
9. Terrified				
10. Nervous				
11. Feelings of choking				
12. Hands trembling				

Item	Not at all	Mildly	Moderately	Severely
13. Shaky				
14. Fear of losing control				
15. Difficulty breathing				
16. Fear of dying				
17. Scared				
18. Indigestion or discomfort in abdomen				
19. Faint				
20. Face Flushed				
21. Sweating (not due to heart)				

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